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ORIGINAL ARTICLES.

THE PREPARATION OF ABSORBABLE DRAINAGE-TUBES FROM THE ARTERIES OF ANIMALS.

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EVERY surgeon will admit that the absorbable drainage-tube of Neuber, Trendelenburg, and MacEwen, though very much superior to the ordinary rubber drainage-tube, has some objectionable features about it, which even its originators have freely acknowledged. It had repeatedly occurred to me that the arteries of different animals might be utilized for this purpose and be made into drainage-tubes by some suitable method of preparation, but lack of opportunity has prevented me from making any experiments with regard to it. In October last I suggested this to Professor S. H. Weeks, since which time he has interested himself greatly in the subject.

After some preliminary but highly satisfactory experiments on the lower animals, Dr. Weeks began to use them in his extensive private and hospital practice with even more success than he was led to expect from his experiments on animals. The results so far obtained by him will be found recorded in the *Transactions of the American Surgical Association* for 1889, in which the author claims these tubes to be superior to any now in use, and supports his claims by numerous examples of cases.

The absorbability and practicability of the tubes having been established in this manner, it became desirable that their method of preparation should be as much as possible perfected and elaborated. This task was assigned to me, and Dr. Weeks very kindly offered me all the necessary laboratory facilities to carry out the experiments required.

In the preparation of drainage-tubes from the arteries of animals, two things must be kept constantly in mind, namely: (1) Any method of preparation to be of value must insure the absolutely aseptic condition of the tubes as its invariable result; and (2) all the different manipulations pertaining to the method about to be described must be carried out under strictly antiseptic precautions, just as much as any surgical operation for which the tubes are intended.

The arteries to be used must be obtained fresh from the ox or cow and scrupulously examined as to their soundness. The slightest imperfection with regard to this must be deemed sufficient to eliminate

them; the material is cheap, easily obtained, and plenty. The arteries coming from vigorous young cows or heifers will be found to give the best results.

As the arteries are bought from the butcher a good deal of the fatty peri-arterial tissue, together with nerves, will be found adhering to them. This tissue is easily removed by means of a pair of scissors, and the arteries, after having been freed from it, are put into a clean porcelain dish and allowed to soak in clean cold water for two hours; should the water become discolored, which is most always the case, it must be renewed as often as is necessary until it remains colorless and every little blood-clot has been washed out. Any little extra attention which is paid to this point will amply repay in the end.

After the arteries have thus been thoroughly cleaned and soaked in water, the next thing to be done is to remove as much as possible of the adventitial coat, which has become very loose and pliable by the maceration in water. For this purpose the arteries are taken out of the dish and fastened by means of tacks at both their ends on the carbolized edge of a clean table, at the same time putting them considerably on the stretch. This fibrous or adventitious connective tissue, forming the outer coat of the arteries, is now seized with the thumb and index finger of the left hand and cut away by means of a sharp pair of scissors, held in the right hand; the artery must be gone over in this manner several times, and be kept moist during this entire process by means of a sponge soaked in water until the pink musculo-elastic circular coat begins to shine through the remaining and very thin coat of adventitia. It is considered neither possible nor necessary to remove, without serious injury, every trace of the adventitial coat and the thin film which usually remains is soon absorbed; it seems to favor the growth of granulations toward the tubes, and, hence, forms a desirable rather than an objectionable feature. On the other hand, when too much of this tissue is allowed to remain, the tubes become slightly thicker than desirable, and, of course, would be absorbed more slowly.

The removal of the adventitia having been accomplished in the above-described manner, the next step to be taken is to boil the arteries for fifteen minutes in distilled water, the boiling to be done in a porcelain dish. By this means we not only harden the arteries to a certain extent by causing the thorough

coagulation of their albuminoid constituents, but we also most thoroughly sterilize their tissues. After the boiling, the arteries are placed in another porcelain dish containing a 5 per cent. solution of carbolic acid in water, and any superfluous shreds of fibrous connective tissue may easily be removed with the fingers, which must, of course, be thoroughly clean and carbolized. Holes are now cut into the coats of the arteries with a pair of sharp, clean scissors, or, better, with a punch which might be made for this purpose. An instrument like the one now used for canalization, but, of course, much smaller, would no doubt answer the purpose very well indeed, and produce openings perfectly uniform in size, a matter which cannot be controlled in free-hand cutting by means of a pair of scissors. After the holes have been cut they are preserved in a 5 per cent. solution of carbolic acid in water and kept there for the next twenty-four hours, changing the solution once or twice during that time.

If the utmost cleanliness has been observed thus far, the tubes ought to look almost white at this stage of the process, and while floating in the solution but a very thin film of fibrous connective tissue may still be seen adhering to them. After they have been thoroughly carbolized in this manner they must be drawn over glass rods of different sizes and sufficiently large to put them slightly on the stretch. This must be done very carefully and with thoroughly clean and carbolized hands. The slight stretching which they experience over the glass rods will tend to make their coats still thinner. Whatever their condition on these glass rods, whether thick or thin, it will be the state they will preserve when finished.

These glass rods, with the arteries in place, are now slipped into a long, wide-mouthed, thoroughly clean bottle containing 95 per cent. alcohol, which will need to be changed but once during the next twenty-four hours. After keeping them two hours more in absolute alcohol, they must be removed from the glass rods very carefully without being twisted; traction should be made in a straight line and with hands that are not only perfectly sterile but which must have been dipped into absolute alcohol.

From the glass rods they are immediately dropped into a wide-mouthed bottle containing the pure oil of juniper berries in quantity sufficient to keep the tubes thoroughly immersed. Here they may be allowed to remain for forty-eight hours without being disturbed. It will be seen that the walls of the tubes in this oil very soon become thoroughly transparent, assuming, at the same time, a very distinct and beautiful amber tint, not unlike that possessed by the bone-tubes of Neuber. Finally, these tubes are transferred from the oil into absolute alcohol, in which they are preserved until used.

It will be noticed that the above-described method

of preparation of the arteries of animals for drainage-tubes is, with the exception of a few unessential modifications, similar to the one which is used in the preparation of bone-tubes by Prof. G. Neuber, one of the most zealous and successful promoters of antiseptic surgery in Germany, and formerly assistant to Professor von Esmarch at Kiel. Kocher's method, as practised in the preparation of catgut ligatures, was also embodied in the above method for the arteries, for the reason that experience has proved that the ligatures made according to this method are absolutely safe and thoroughly trustworthy; hence these ligatures are now used by the most experienced surgeons in preference to all others.

The oil of juniper seems to render the arteries, previously hardened in alcohol, still harder, and, consequently, makes them more efficient and serviceable than those hardened in alcohol alone. The simplicity of the method is an argument in its favor when compared with the method of preparation of drainage-tubes out of bones. It is especially advantageous that the surgeon, with but little care and expenditure of time, can make the tubes himself, needing neither chisel nor drill, and has the satisfaction of rendering them completely aseptic under his own personal supervision. Tubes of all sizes and diameters are found already formed in the animal, the thickness of these coats varying according to diameter, and both being well proportioned, one method suffices for them all, the largest requiring no more work than the smallest; they can be made of any desired length, and admit of being cut with the scissors or knife without splitting or losing their shape or contour in any way.

In conclusion, it must be mentioned that these tubes should not be allowed to remain too long in carbolized solution before being introduced into the wound, since this would cause them to swell up too much, and a few seconds' immersion is quite sufficient for the purpose of removing the few drops of alcohol which adhere to them. The process of absorption is prompt, thorough, and highly satisfactory in every respect, taking place after the manner so often described for catgut ligatures.

THE THERAPY OF OCEAN CLIMATE.¹

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THE elements of ocean climate are necessarily few: A superincumbent atmosphere free from impurities in proportion to the distance from land, with a temperature of very limited range through the absence of local disturbing agencies, and having diffused through it a correspondingly uniform amount of aqueous vapor. Nowhere over the ocean

¹ Read before the American Climatological Association, June 24, 1889.

does the mean daily fluctuation of the temperature of the surface quite amount to a degree. The temperature of the atmosphere has a rather wider range than that of the sea on which it rests, but this is very much less than anywhere on the land.

Only the weeds of the Sargasso Sea enjoy perennial abode among these simple climatic conditions. The longest passages of sailing vessels seldom extend beyond two or three months. Were they years long, the monotony would pall upon the voyager and make him sigh for the green fields and sandy plains of *terra firma* with all their unwholesome smells.

Next to the transitory exposure to ocean climate in the course of a sea-voyage is the residence on some small mid-ocean island where there are few vicissitudes of weather, short range of temperature, and none of the physical befooulments from masses of men and animals or decaying vegetable matter. Here, even better than on shipboard, is to be found the opportunity for making ocean climatic influences available as curative measures.

The therapeutic uses of climates, as of drugs, are to be inferred from their physiological or pathogenetic effects. What is the influence of life upon the ocean on the well man-of-the-sea? He is of two orders: One the merchant sailor, who begins his career after the land-shark has left him penniless, debauched, and diseased; who is kennelled like a brute in a gloomy, filthy, unventilated forecastle, is ill-fed, scantily clad, maltreated, and overworked. What of value can be learned from his physical history beyond the general fact, that such as survive come into port after a long voyage, notwithstanding the sparse fare, exposure, dirt, neglect, and ill-usage, still strong and vigorous? Though much of this is due to a certain enforced regularity of life and the interrupted sacrifice of health at the shrines of Bacchus and Venus Porcina, much is also due to the invigorating influence of protracted exposure to sunlight and pure air in their out-door work.

Of the better class of the men-of-the-sea—the man-of-war's-man—we might expect to learn something more definite. He too is recruited from the slums of the shipping quarters, but he is required to be clean, sober, and absolutely free from disease when enlisted, and after that is well-fed, clothed, and treated, so that his medical history may be assumed to give some indication of the causes of disease to which he has been subjected; but the medical returns of the various naval services are chiefly summaries of the cases of disease and injury treated, arranged, so far as the British and American Navies are concerned, under the customary nosological classification of the London College, and consequently, indicating but little as to the precise first causes of these diseases, whether contracted during visits on shore or developed *ab origine* in well men during their

sojourn upon the high seas from causes there in operation. The rheumatism of the syphilitic, for which Neptune cannot be blamed, and the rheumatism of bad weather, which is a very decided salt-water affection, usually go into one class to swell a common total. The pulmonary phthisis for which an ancestor is responsible and the phthisis which the foul, damp air of the unventilated berth-deck has developed are undistinguished, though only the latter is of statistical interest as a product of ocean pathogenesis. The fact, too, that naval medical returns include those of the naval establishments on shore as well as those afloat, prevents the identification of the strictly nautical affections, but, notwithstanding this, it is interesting to note in the last published report of the Surgeon-General of the Navy of the United States, that among a total of 8550 admissions of sick and disabled officers and men of the Navy and Marine Corps, nearly ninety per centum were included in the following few classes, to wit:

Casualties	1917
Venerel diseases	1071
Diseases of the integument	888
Malarial and other fevers	888
Affections of the nervous system	489
Diarrhoeal affections	483
Rheumatism	521
Inflammatory affections of the respiratory tract	1149

the remaining 1144 being distributed over a wide range of titles of which many, as adynamia, cephalgia, constipatio, odontalgia, etc., have no special significance. It is probable that only about one-fourth of the cases of disease occurring at sea are attributable to any of the circumstances of oceanic life, and these are almost entirely inflammatory affections of the air passages and intestinal tract, neuroses including *nausea marina*, and rheumatism.

It is evident there is no saving balm in salt water, which hardens the sailor against aching muscles and swollen joints, and such of their ailments as are not the results of exposure to vicissitudes of weather are caused by decks needlessly wetted for cleaning, and the overcrowding of their badly ventilated quarters—but this is man's work, not nature's. While these are characteristic affections of the men that follow the sea, these complaints are not in any sense climatic, but due to the occupation of the seaman and to local unsanitary conditions, and the greater proportion of them are avoidable. Consequently, they have no bearing upon ocean climatic therapeutics, which does not comprehend exposure to bad weather, wet and overcrowded decks, or exhaustive labor upon sails and anchors.

What then, since there are so few causes of disease in operation, may the seeker after health hope to gain by a sea-voyage or by prolonged residence on

some ocean island where all the conditions of sea-life prevail?

First, if season, course, and destination be judiciously chosen, the invalid will obtain, on a long voyage, in a comfortable sailing vessel, *rest*—of mind and body—a condition of absolute insouciance, and relief from the cares and distractions, the daily worries and anxieties of life, the interruptions and noise and turmoil and excitements which railroads, telegraphs, and newspapers bring into the very sick-room on land.

If not so completely bed-ridden (in which case he probably ought not to go to sea at all) but that he can lie in an easy chair on deck, he will be able to breathe and bathe in an air that is barren of every impurity, and with every inspiration experience a sense of pleasurable invigoration.

If sea-sickness is not an indomitable idiosyncrasy, as I have known it to be even in captains of the navy, he will, after a few days, when he "gets his sea-legs," as sailors term it, find inexpressible delight in pacing the narrow bounds of the quarter-deck, and lengthen the hours of this gentle exercise until they become whole watches long.

Once accustomed to the motion of the vessel and of the sea, nausea will give place to appetite, which is sharpened as well for old salts as land-lubbers, and the plainest food will be taken with unwonted relish, betokening improved assimilation. If care be had to overcome the usual tendency to constipation, ingestion may go on without restraint. The eagerly anticipated meal-hours become the eventful marks of the passage of time. The whilom patient eats and sleeps, and wakes to find new zest in the simple employments of the day. Rocked in the cradle of the deep, the ocean's lullaby soothes the sufferer into forgetfulness of his ills.

A long sea-voyage in temperate latitudes on board a clean, roomy vessel, well outfitted and equipped, is a judicious therapeusis for chronic invalids of almost every class; but to be effective the ship itself must be free from the dirt, dampness, and bad ventilation which, under aggravated circumstances, made scurvy, ship-fever, and dysentery actual scourges of sea-life, and in a less conspicuous degree show their effects in the rheumatism, phthisis, and diarrhoea which are needlessly frequent among sailors. Only a clean ship can be a healthy ship, and it is just as axiomatic that a foul ship will develop, breed, and transport disease. The filthy mess in the bilges of old-time men-of-war, where the heresy of naval hygiene was not permitted utterance—the putrid mixture of salt- and fresh-water, coal-dust, oil, provisions, and decomposed timber—an artificial marsh as pestiferous as any miasm-breeding quagmire on land, gave forth emanations which blackened the paint and pervaded the atmosphere, enveloping the ship with a polluted aureole that clung to her through

all her course. In those days the scent of bilgewater was considered as inseparable from a vessel as the barnacles on her bottom. If naval medical officers have lacked opportunities for distinction as operators or diagnosticians, they have still fought a good fight and gained a glorious victory in the cause of true medicine in the revolution they have effected in methods of life at sea. Virulent diseases have become extinct, and the heights of sanitary independence have been gained, whence it is possible to point out the weak places through which the enemies of human health gain entrance, and at which their further passage must be prevented.

Under any circumstances, however, a ship is useful only as a temporary expedient. In the often-quoted instance of Collingwood's flag-ship, "which with a crew of eight hundred men was, on one occasion, more than a year and a half without going into port, and never had more than six on her sick-list; this result was occasioned by his system of arrangement and his attention to dryness, ventilation, etc., but above all by the contented spirit of the sailors, who loved their commander as their protector and friend, well assured that at his hands they would receive justice and kindness, and that of their comforts he was more jealous than of his own;" but the circumstances were exceptional, and in the case of confirmed invalids a too prolonged residence on board ship becomes depressing. Hence, stationary hospital-ships are not desirable where local insalubrious influences do not prevent establishing the sick on shore. Gliding over the water day after day with the consciousness of progress and the prospect of an end, however distant, is quite another matter from riding at anchor in a harbor, watching, from a sick cot, green fields and purple hills. There is something, too, in the tonic touch of earth upon one who has been very long ill at sea—some mysterious influence affecting the molecular relations of the human body, which cannot for too great a time be intermittent, so that the therapeutic advantages of cruises are only limited.

The slowly convalescent from whatever disease—from protracted fever, chronic diarrhoea, nervous asthenia—the incipient pulmonary case, the feeble, fretful valetudinarian, the overworked business man, the broken-down woman, the child with slender hold on life, if sea-sickness is controllable, will, after a few days of pleasant sailing, recover appetite, and often recuperate with marvellous rapidity. The inebriate removed from the temptation or the means of self-gratification; the not inconsiderable class of cases of sexual exhaustion and of other forms of impaired nervous power; the thousands of victims of their own follies who fill the sanatoria, private hospitals, and health-resorts; the irritable *malade imaginaire*, and melancholy hypochondriac and misanthrope are especially benefited by the quiet restfulness of a long sea-voyage

in pleasant weather, when the assimilative process becomes the dominant function, and the worn brain and flaccid vessels and feeble lungs are beguiled into feeding on what will make them strong again.

Indeed, so serviceable a measure for restoring health ought, ere this, to have led to special provision for accommodating invalids—floating sanatoria—sailing vessels by preference by reason of the less rapid transition to higher or lower latitudes, with auxiliary steam power to carry them across calm belts, drive a ventilating fan, operate a dynamo for electric light, and furnish steam for artificial heat and other necessary purposes—vessels provided with every needful convenience, with skilled medical attendance and nurses, and with fresh food, fresh milk, and fresh fruits—no longer problems since the day of refrigerating chambers, milch cows, and live stock. Thirty years ago the harbors of China and Manila, Rio de Janeiro and Valparaiso were crowded with splendid American clippers, whose commanding officers were veritable princes of the sea, and whose elegantly appointed apartments were capacious enough, after housing their families and guests, to allow a spare stateroom or more for some invalid stranger; but to-day one looks in vain among the great distant seaports of the world for the ensign of an American merchantman, so that there is little opportunity from this country to make long sea-voyages, save for those wealthy enough to own pleasure yachts which can answer the double purpose of sight-seeing and health-seeking. The carrying trade between Great Britain and Australia, however, requires clipper-built merchantmen of the largest class, whose cabins are nowadays arranged with the very object of accommodating invalids, who have so increased in number that it has been proposed to construct a class of *invalid ships* for their exclusive use; but there is the same objection to congregating large numbers of sick on board ship as at health-resorts or in hospitals, so that if large, well-ventilated staterooms, bathrooms, good food, and other comforts can be obtained on board a vessel where there are few passengers, the results will be better than upon a regular invalid ship, where the very air is heavy with studied silence, and where ever-present precaution reminds the sick man that he is manacled by disease. The spectacle of pallid, helpless men and women at Madeira and Nice and similar health-resorts depresses the well and frightens the ill—as the yellow flag of the quarantined vessel causes all the sick to die and all who can get sick to do so, until every possible victim is reached.

The therapeutic agencies which operate upon the broad ocean—rest, pure air, equable temperature and moisture, and the minimum of disturbing causes, are to be found in almost as great degree on the ocean islets, where the sound of rippling springs, the sight of fresh verdure, and the scent of earth

replace the monotony of the horizon-bound disk of water.

These islets are dotted over the sea—numerous in Oceanica, where distance and rare opportunities of communication place them beyond convenient and frequent access—less numerous but easily reached in the Atlantic, where midway between the continents they invite the weary broken-down sufferers in mind and body to find rest and sweet oblivious antidote for all their ills. The Azores, Madeiras, and Canaries are the chief among these “isles of the blest.” The former, especially Fayal, about two thousand miles, ordinarily a pleasant fortnight’s run from Boston, offer a climate so mild, that one need hardly look for a better, were it not that that better is to be found at Madeira, and a best of all at Orotava on the Island of Teneriffe, one of the group of the Canaries—*Las Canarias* of the Spanish, the *Insulae Fortunatae* of Roman geographers, whose mountain peaks stand above the waters like tombstones in this ocean cemetery, where a continent and its millions of Atlantean inhabitants are buried.

The Madeiras are but five hundred miles from the Azores, and the Canaries two hundred farther south, so that the way is easy to that delightful spot, which Humboldt thanked God he had lived to behold—the valley of Orotava, fit garden of another Eden, where he who would begin life anew may find everything save the vice and artificialities and malefic agencies of modern civilization. Twenty years ago I wrote of this spot, what twenty years later I reiterate:

“Here, if anywhere, reigns perpetual spring, without fogs and frosts, where the sap never dies, where rain seldom falls, winds and storm are scarcely known, and burning heat is never felt. Shut off by the high central range of mountains from the hot winds of the African coast, it is yet open to the ocean at the north, from which and the eternal snows above, it derives the moisture that secures its equality. The temperature of Orotava never falls below 50° F., nor rises above 82° F., and only attains these extremes on such rare occasions as when the thermometer marks 108° F. or falls below 0° F. at Philadelphia. Its average for a number of years has been 68.5° F., that of Madeira being 66° F.; of Rome, 61° F.; of Nice, 60° F.; of Pau, 56° F.; and of Paris, 51° F.; the first being identical with that of our own delightful autumn days, and that which is the most grateful to the body and most conducive to its well-being. But annual means are unsatisfactory indices; countries very cold in winter and hot in summer exhibiting a temperate mean, and it is, therefore, necessary to consider the distribution of heat in each month of the year. The monthly means at Orotava have been for

January	62.2° F.
February	62.1° F.
March	64.2° F.

April	.	.	.	.	.	64.6° F.
May	.	.	.	.	.	69.4° F.
June	.	.	.	.	.	73.8° F.
July	.	.	.	.	.	76.5° F.
August	.	.	.	.	.	73.2° F.
September	.	.	.	.	.	71.8° F.
October	.	.	.	.	.	69.3° F.
November	.	.	.	.	.	68.4° F.
December	.	.	.	.	.	68.7° F.

A difference of only 14.4° F. between the hottest and coldest months, while at London this amounts to 26° F.; at Pau, 32.2° F.; Rome, 28.3° F.; Nice, 29° F.; and Madeira, 15.3° F.

"But it is the winter season which most concerns the invalid, and the mean temperature of the five months from November to March, from the fall of the leaves to the opening of the lilies, at Orotava is 64° F.; at Madeira, 61° F.; and at Nice and Rome, 50° F. The February of Orotava is the June of London, the May of Pau, and the April of Rome and Nice and Cannes. Stoves are necessary for comfort in Italy and the South of France; in Orotava they are unknown. Linen garments may be worn the entire year. The Guanches were naked except for the loin cloth, and one can bathe as well on the 31st of January as on the 31st of July, while at Nice even the healthy visitor finds it necessary to stipulate for apartments opening to the south and exposed to the direct rays of the sun. There are no sudden variations of temperature at Orotava. There is a fraction over two degrees per month of gradual elevation from the winter to the summer and a corresponding decrease through the autumn, and even these differences may be almost neutralized by removing one's residence from the Puerto on the seashore in the winter to the Villa, a few hundred feet higher, or to any greater elevation on the slope of the Cañadas during the summer. Moreover, the mean temperature of one day seldom differs from that of the preceding more than a degree. On rising in the morning the invalid may be sure of respiring air of the same warmth as on the foregoing day, while the hourly variations of each day are also inconsiderable, the early hours of the morning differing only 6° to 9° F. (at Madeira the difference is 12° F.), from the heat of mid-day, and the most of this occurs before nine o'clock. At Orotava doors and windows may always remain wide opened, maintaining a perfect equilibrium within and without, the advantage of which cannot be overestimated. Here the invalid may live in the open air—the air of the ocean—which is uncontaminated by the thousand emanations of a large city, his feeble lungs, lightened of most of their labor, mechanically discharging their functions and as much at rest as is possible for organs whose only complete repose is death.

"Nor is temperature the only climatal condition in which Orotava enjoys such sanitary preëminence.

In point of humidity and exemption from atmospheric vicissitudes it is unequalled by other localities. It rains but forty-five days in the course of the year. At Madeira the average is seventy-three; in Rome, one hundred and fourteen. The mists which bathe the mountain crests, the streamlets that course down their sides from the line of melting snows, the vapors wafted from the ocean, and, when these are wanting, the gentle rains of the winter, furnish that due proportion of moisture which is most agreeable to man and most favorable to healthy life. There is no warring of the elements at Orotava. The barometer stands almost invariably at 30.12 in., and, according to Belcastel, it did not vary a centimetre (0.39 in.) in six months. From February to November a northeast wind prevails, strongest in March, becoming lighter in the spring, to be all summer and the greater part of the autumn only the breath of a zephyr, setting in regularly about eight o'clock in the morning and moderating the heat of the day. The vapors from the Atlantic are gathered in a thick cloud about half the height of the amphitheatre of the valley, and there held all day, like an immense parasol, intercepting the direct rays of the sun. Days entirely clear are rare, until the gentle rains of the late autumn signalize the disappearance of the clouds and the revival of vegetation. The winter passes without frost, but the white-crowned plateau of the Cañadas, seven thousand feet high, which rims the basin of the valley, and the snow-capped Peak of Teneriffe, towering five thousand feet still higher, denote its presence and add new charms to the landscape. The superiority of Orotava in the matter of hygiene over every other known resort has been set forth by M. Gabriel de Belcastel in his excellent little monograph entitled 'Les Iles Canariennes et la Vallée d'Orotava, sous le point de vue médical et hygiénique,' and his opinion is confirmed by Professor Schacht, of Berlin, in his work on *Madera und Teneriffa*. Madeira approaches it more nearly, as might be expected from its geographical proximity; but the winter of Madeira is unpleasantly chill, its humidity is greater, and the *harmattan* blows upon it from Africa. Nice and Cannes are toyed by the smiling waves of the Mediterranean, but they sleep at the foot of the Alps, and their awakening air has its home in their clouds. Naples is visited by keen north winds, coming after the deceitful caresses of the *sirocco* from the Libyan Desert, and at Rome and Florence the cold is sometimes intense, while they are often deluged by rains."

While it may be insisted that these insular sanitaria are of the earth earthy, however small their extent, their climate, for reasons already stated, is strictly oceanic, since their area is but a speck amid the surrounding waters, so that for therapeutic purposes they may be regarded as big vessels anchored for a time where the salt sea-breeze may have un-

checked sweep across them. The conditions of equalibility of temperature, moisture, and electric tension, and absence of ochlactic poisoning, prevail here even better than on board the ocean steamship, where there is no escape from the greasy smells of the galley and the machinery, the noise of the engine, and the exasperating clatter of crowds of passengers, or on board the sailing vessel, where the contracted stateroom is apt to be befouled by emanations from the bilges.

At Madeira and Orotava the therapeutic agencies are purely climatic. The air, and light, and heat of the sun are the revivifiers. No drug lends its potency to nature's means. The vicious microbe dies for want of food. If medicinal agencies be needed, as for the rheumatic, venereal, gouty, or dermatosic sufferer, these may be found on the island of Sao Miguel, the largest of the Azores, where intensely cold and boiling waters issue, side by side, from the earth and mingle their tides, sulphurous vapors floating continually from the mouths of the hot wells and from the not inaptly termed *Boca d'Inferno* (mouth of hell), or mud crater, which tosses the semi-solid contents, that seldom overflow, about a circle of forty-five feet diameter. Here there are sulphur and saline springs in a benign climate, where the skin may be kept soft and clean, the emunctories active, the lungs filled with pure air, and the stomach with wholesome food, and if meddlesome man will leave the stopples in his vials, the road to health may be regained all the more quickly. An old friend, himself a physician, who had gone to a famous spring because, like the bewailing Psalmist, there was no health in his flesh nor any rest in his bones, and, perhaps for the same reason, complained to me that he was not allowed to depend solely upon the column of variegated salts and alkalies, which the analysts had strung out to five and six decimal places, but the resident professional brethren insisted upon supplementing a substantial dosage of iodides and bromides that put to shame nature's own infinitesimals.

So, wise in our own conceit, we stand with minim-glass and milligramme, and measure and weigh with dosimetric nicety what perchance nature only disdainfully rejects through her waste chutes—*per vias naturales*. Is it not time to stop and ask ourselves whether it be not the better part to place our patients where, amid Heaven's boundless supplies, the wiser air-cells, and bloodvessels, and lymphatics may themselves select just what they most require—where pure air and water, and good food, cooked to tempt the palate with half the art in making pretty potions to please both eye and taste, shall be the tonics to regenerate the blood till it revivify the worn-out nerves, repair the wasted tissue, and set once more in healthy play the vital machinery which animates and gives the

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body being? Mere drugs cannot do this, and drugs needlessly, excessively, wrongfully administered, can only retard it. The pharmacist may oftentimes be idle, but the therapist's task will be no lighter, for climato-therapy requires sound judgment, wise and discriminating adaptation of natural agencies, and the same watchful observation of the grade of action shown by the pulse, the condition of the organic fibre, and the state of the secretions, which are the sum of the physician's duty, however huge his pharmacopœia. If he can preserve tissue from destructive change, keep the emunctories in active play, and control the pulse's fitful beat, he may patiently bide his time for those forces to exert their power, which out of the germinal vesicle make the perfected man—out of the stomach's bole, the blood's living corpuscles, and out of these the sentient flesh and conscious brain. Only the sciolist makes pretence to cure. At our best we are but care-takers. Like children playing with building-blocks, we can pile together a few elements into semblance of organic compounds, but the sublime mystery of the living cell defies us. When we can recognize just where the departure from normal cell-life begins, and shall have learned how to control the process of assimilation, we shall have conquered disease and put under subjection all but the last enemy—death.

THE INFLUENCE OF AN OCEAN ATMOSPHERE ON A STAID POPULATION, WITH SPECIAL REFERENCE TO PULMONARY CONSUMPTION.¹

BY A. N. BELL, M.D.,
OF BROOKLYN.

IT is a common criticism on the vital statistics of seamen with reference to the salutary influence of an ocean atmosphere, as related to pulmonary diseases, that the subjects are always more or less selected by special examination, as in the recruiting service of the navy; or by the limitations of age, in the merchant service. The object of this note is to rebut that criticism by the vital statistics of a staid population of all ages, dwelling under the influence of what may be considered an intensified ocean atmosphere—the trade winds of the tropics, and almost at the level of the sea.

The population selected is that of Turk's and Caicos Islands, comprising an area of one hundred and sixty-nine square miles, situated between 21° and 22° north latitude and 71° and 72° 30' west longitude. The greatest altitude is an unoccupied bluff of less than one hundred feet; a considerable portion of the shore is water-logged and swampy; little or no attention is paid to drainage; vegetation

¹ Read before the American Climatological Association, June 24, 1889.

is scant; the dwellings are, for the most part, frail structures, almost wholly devoid of sanitary conveniences; there are no sanitary requirements; the whole people seem content to depend upon the forcible atmosphere and abundance of sunshine, for both health and the means of livelihood—the dissipation of foul emanations from the soil, and water from the salt-basins.

The following is an abstract of a copy of official records:

For the ten years 1877 to 1886 the average population of Turk's and Caicos Islands has been 4732; of this number Grand Turk, the only village, extending about two miles along the shore of Turk's Island, contains about 2000. The average temperature for the period has been 83° F. Range of temperature, 75° to 90°. Strong trade winds from east-north-east to east-south-east throughout the year. The weather is never hot at night, except on very rare occasions, when the wind subsides for brief periods. Rainy weather is almost exclusively confined to March and September.

The registration of deaths for the ten years is as follows:

record was copied, and as his early return, by the way of New York, was at the time expected, it was awaited, with a view to obtaining the needful detail. He arrived, as expected, but, unfortunately, not feeling well enough to give the subject immediate attention, was soon after taken sick and died of pneumonia.

Notwithstanding, the inquiry has been pursued and the record closely scrutinized by an intelligent observer conversant with it. Mr. Joseph Hutchings, editor and proprietor of the only newspaper published in the islands, writes:

"I have lived in Grand Turk thirty-four years. I think it is one of the healthiest places on the face of the earth. There are over 2000 Turk's Islanders in the different ports of San Domingo, within seventy miles, and two-thirds of the adult deaths are from diseases contracted there, whence they come to their relations to die. I knew every one who died in Grand Turk during the ten years, and, in looking through the records, I am satisfied that the number from pulmonary consumption does not exceed three or four yearly."

By reference to the table it will be observed that the number of deaths from pulmonary diseases of all kinds during the ten years was 155. If the larger number given by Mr. Hutchings, 4, annually,

DEATHS REGISTERED IN TURK'S AND CAICOS ISLANDS DURING THE TEN YEARS 1877-1886.

Diseases.	1877.		1878.		1879.		1880.		1881.		1882.		1883.		1884.		1885.		1886.		Total.
	Turk's.	Caicos.																			
Pulmonary	11	14	6	3	5	5	7	8	10	8	7	6	12	8	9	5	12	4	10	5	155
Intestinal	6	1	7	1	1	4	3	9	9	6	6	5	8	4	5	9	8	3	7	9	111
Throat	1	...	1	...	...	1	...	2	...	1	2	1	...	...	1	...	...	2	1	1	13
Scurvy . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Urinary organs	1	...	...	...	...	...	...	...	...	...	...	...	1	...	...	2	...	1	...	...	5
Smallpox . . . . .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	1
Dropsy	1	...	...	2	...	1	1	1	1	5	3	2	1	2	...	2	1	...	...	...	23
Leprosy . . . . .	...	...	...	...	...	1	...	1	...	...	...	...	1	...	...	...	...	...	...	...	3
Senile decay	2	3	3	6	9	4	17	13	12	7	13	8	10	4	10	8	10	9	11	6	165
Infants, under 3 years .	29	18	13	23	16	18	23	22	15	9	20	9	9	17	18	15	17	13	15	8	327
Fits	2	...	1	...	1	1	1	1	...	...	...	1	...	...	...	...	1	1	1	1	9
Heart . . . . .	...	...	2	...	1	1	1	1	...	...	...	1	...	1	...	...	...	1	1	1	6
Liver	1	...	...	...	...	...	...	...	...	...	1	...	1	...	2	...	...	...	...	...	5
Scrofulous . . . . .	...	...	...	...	...	...	...	...	4	...	...	1	...	...	...	...	...	...	...	...	2
Cancerous	1	2	...	1	...	1	...	1	...	1	1	...	1	...	1	2	1	...	...	...	11
Spinal . . . . .	...	...	...	...	...	...	...	...	1	...	1	...	1	...	...	...	...	...	...	...	2
Fever	4	9	3	3	6	7	5	6	10	4	10	4	9	3	3	3	8	3	2	...	99
Paralysis	1	...	1	...	1	...	2	...	...	2	1	1	1	...	1	...	1	2	1	...	12
Rheumatism . . . . .	...	...	2	...	...	1	...	1	...	1	...	1	...	2	...	1	1	1	1	1	9
Asthma	1	1	...	1	...	1	...	1	...	1	...	1	...	...	...	1	1	1	1	1	8
Palsy . . . . .	...	...	...	1	...	1	...	1	...	1	1	1	1	...	...	1	...	...	...	...	6
Accident . . . . .	...	1	1	3	2	...	3	2	5	4	3	3	2	1	2	8	4	1	3	2	50
Syphilis . . . . .	...	...	1	...	1	...	1	...	...	...	...	...	...	...	3	...	1	2	...	1	2
Childbed . . . . .	...	1	...	...	4	...	1	...	...	1	...	...	1	...	3	...	1	2	...	1	10
Total	61	50	35	42	39	40	68	66	60	52	66	48	52	49	56	50	61	48	55	37	1035

The imperfections of this table, particularly with reference to pulmonary diseases, all grouped together, have considerably delayed the use of the information—intended at the outset for the meeting of the Association a year ago. But Dr. Daniel Bascome, the only physician of the islands for about thirty years, was on a visit to England at the time the

among the 553 registered in Turk's Island during the ten years be taken as the approximate proportion from pulmonary consumption in the whole population, the ratio from that disease to that of other diseases of the lungs, will be about the same as the proportion observed in these latitudes—one-half; and the ratio of deaths from pulmonary consump-

tion to the deaths from all causes in Turk's and Caicos Islands, about seven per cent.

Moreover, it is interesting to observe, in this connection, that the proportion of deaths from diseases of the lungs to those of other diseases in the village of Grand Turk is, according to the usual wont of such diseases, considerably larger than in the Caicos—the scattered population.

Of deaths from fevers, on the other hand, the proportion in the scattered population is almost twice as large as that in the village; and Mr. Hutchings remarks, in regard to their prevalence, "very few originate here, except an occasional case of bilious fever. The Islanders who go to San Domingo contract malaria, which, strange to say, kills the blacks without fail; most of whom are young persons."

Of the large number of accidents recorded, the most prevalent is drowning—15 of the 50 registered.

"Eye diseases" are remarked upon as being especially prevalent.

Of the large number of deaths registered "senile decay," more than one-sixth of the total number of deaths, the ages at death range from 65 to 103 years, and average about 74.

Of the deaths registered from infantile diseases, under three years of age, and thirty per cent. of them under three weeks, the number is not quite twice as large as that from senile decay. Measles, whooping-cough, and thrush are the alleged chief causes.

"Throat diseases," from which thirteen deaths are registered, include bronchitis and, in the Caicos, ulcerated throat. There is no record of diphtheria.

For the rest, the table is sufficiently explicit.

On the whole, it may be remarked, the population of these islands is a staid one to an extraordinary degree and exclusive.

The place has but few visitors, and those for short periods; the sickness and death-rates are not swelled by strangers. On the other hand, these people are generally poor. They rarely leave their homes except from necessity—in search of work—and then as before stated, they visit the less healthful place, San Domingo, where they contract fever. Their occupations and regimen are alike unfavorable to strength of constitution and protection against pulmonary consumption. Yet they are exempt to an extraordinary degree, and the exemption appears to be wholly dependent upon the climatic conditions to which they are exposed.

Cremation in France.—The Municipal Council of Paris has appropriated 383,299 francs for the erection of a crematory in that city, and has levied a "cremation tax" to defray the expenses of the incineration of the bodies of those whose friends cannot afford to pay for it.

PROLAPSE OF THE WOMB, WITH ESPECIAL REFERENCE TO THE (SO-CALLED) HYPER-TROPHIC ELONGATION OF THE SUPRA-VAGINAL PORTION OF THE CERVIX, WITH REPORT OF A CASE.

BY LEWIS H. ADLER, JR., M.D.,
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PROLAPSE of the womb may occur in three distinct ways: (a) Simple descent. (b) Descent from hypertrophic elongation of the infra-vaginal portion of the cervix. (c) Descent from hypertrophic elongation of the supra-vaginal portion of the cervix. With out a knowledge of all the kinds of prolapsus, a differential diagnosis of any one of these conditions would be impossible. Therefore, a brief description of each of the above forms may not prove uninteresting.

Simple prolapse, or, as Dr. William Goodell aptly calls it, "substantial descent of the womb," is a sagging down of the uterus as a whole, together with its appendages. The degree of displacement depends upon the weight of the organ and the amount of relaxation of its supports, ligaments, etc. It may be *partial* or *complete*—that is to say, the womb may be either within the vagina, or wholly or in part outside the vulva; in the one case constituting the *prolapsus uteri* of writers, in the other the condition called *procidentia uteri*. These terms are so often used interchangeably that it is best to avoid them and to use the descriptive terms of complete and incomplete prolapse.

The causes, both predisposing and exciting, are the same in each of these divisions of simple prolapse, the difference between them being one solely of degree and not of kind. We may, therefore, study them together.

Advanced age, laborious occupation, habitual constipation, and childbearing, predispose this condition, whilst any cause which tends to increase the weight of the organ or to weaken its support will also prove an exciting factor.

The symptoms occurring in this prolapse are manifestly present either in a greater or less degree in the other two, and may be considered better in that form of prolapsus which this paper is meant particularly to describe.

The treatment consists in replacing the organ into its normal position and in sustaining it in the same by means of supports, in the shape of the various forms of pessaries in the market, which must be adapted to the needs of each particular case. The bowels should be carefully regulated, all heavy work and straining at stool avoided, astringent vaginal injections may be used with advantage, and rest in bed is often productive of good. Any complication which may exist, such as inflammation, ulceration, or hypertrophy must receive attention.

If the primary cause of the prolapse can be ascertained and remedied, the secondary results of the same can be the more successfully combated.

The general health must be improved. Tonics, such as strychnine, iron, and quinine should be given. Ergot is often useful. Sea-bathing is advised by many.

Where the above treatment fails, surgical procedures must be tried as a final resort.

Rupture of the perineum during parturition being a frequent starting-point in the production of prolapse of the uterus, it is essential to remedy this defect whenever found to exist. Numerous operations, having for their object the narrowing or constriction of the vaginal canal, have been resorted to by various operators, such as Sims, Emmet, Schröder, and Hegar.

Sims removes a V-shaped portion of the anterior wall of the vagina by means of curved scissors, and then brings the edges together by means of silver wire sutures. The cervix is meant to fit into the pouch thus formed.

Emmet closes the pouch by running a denuded strip, as a base to the triangle, across in front of the cervix uteri. Appreciating the difficulties involved in the execution of this operation, he has since simplified it by denuding two surfaces, about half an inch square, on either side of the cervix, and a little behind the line of its anterior lip, then removing a strip from the vaginal surface in front of the uterus, about one inch long by half an inch wide, and bringing together these three points, with the effect of forming a fold in front of the cervix. Silver wire sutures are used in this operation, four or five to the inch. Schröder freshens an oval portion and secures adhesions by alternately deep and superficial sutures.

Hegar narrows the vagina by the removal of a V-shaped piece of mucous membrane from the posterior vaginal wall, the apex being carried up nearly to the cervix, the base ending at the vulva, which it includes.

The best of these operations is considered to be that of Emmet's, if there is no evident rectocele, or that of Hegar's if there is one, particularly if it drags upon the uterus.

Prolapse of the womb from hypertrophic elongation of the infra-vaginal portion of the cervix presents an entirely different condition of affairs from that we have just been discussing. It is the result of a hypernutrition of the part (Goodell). Emmet doubts the existence of such a lesion unless it be the result of a laceration of the uterine neck and os. That it exists, however, without this lesion as a productive factor, other competent judges bear testimony, amongst whom I might mention Dr. Goodell,¹ of

this city, and Dr. A. W. Edis,¹ of London. The body of the uterus in this condition occupies its normal position, but the elongated cervix projects into, and occasionally fills to a great extent the whole length of the vagina, the os externum projecting at, or even beyond, the vaginal outlet. This latter condition is, as a rule, either congenital or an exaggeration of a congenital condition, and is therefore found in multipara (Goodell).

Hypertrophic elongation of this portion of the cervix may arise in consequence of the process of involution not taking place properly; from the stretching of the uterus when adherent to an extra-uterine cyst (Edis); the presence of fibroid tumors dragging up the uterus as they grow above the pelvic brim, etc.

The treatment in these cases is essentially operative and will be treated of in the next and last form of prolapse to which the womb is subject, viz. (the so-called)

Prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix. That this form of prolapse exists is doubted by many; yet it is admitted by the majority that a change of some sort does occur in the *supra-vaginal portion of the womb*, which is supposed to be an instance of elongated cervix, but in reality *is not in the cervix proper* but in the tissues of the body of the uterus. Emmet² goes so far as to say that instead of there being an enlargement of the cervix, actual atrophy of the same is the rule.

Let us at this point illustrate our further remarks by a case admitted into the University Hospital in the gynaecological wards of Professor Goodell, January 4th of this year.

Mrs. E. G., aged forty-six years, a German. Always was healthy. Married in 1862. Menstrual periods had been regular since the age of fourteen, when they first started. Has had two children; the first was born March 14, 1863, the second, January 30, 1865; never had any miscarriages.

The trouble for which she sought help in the hospital came on after the birth of the second and last child; when, as she describes it, the womb descended until it gradually appeared outside of the body. This labor was a tedious one, owing to the early rupture of the waters and the large size of the child. It resulted in a slight tear of the perineum. She never felt like herself after this confinement. Suffered more or less from leucorrhœa, constant bearing-down feelings, a weakness in her back and loins, and other uterine symptoms, which she attributed to getting up and working too soon. Her housework, which she had formerly done, she now found impossible to continue.

Some years ago, as near as she can remember, a

¹ Diseases of Women, including their Pathology, Causation, Symptoms, Diagnosis, and Treatment, 2d ed., p. 277.

² Emmet's Principles and Practice of Gynecology, 2d ed., p. 485.

tumor began to protrude more and more from the vulva, which was preceded by painful micturition, so intense at times that the mere thought of emptying her bladder drove her wild with fear. Her physician, who was now consulted, replaced the tumor and advised an operation; but as she would not entertain the thought, he applied measures which temporarily lessened her suffering.

This state of affairs continued until the time when she made up her mind, at her physician's earnest solicitation, to seek relief by operation at the hospital.

Upon examination on admission, her condition was found to be a pitiable one. In walking she was obliged to straddle—wabble along as it were. The tumor, which at first was easily reducible, and without pain, now caused her intense suffering if only touched. Micturition and defecation were both exceedingly difficult and painful; the former especially so. The urine was constantly dribbling away, and had excoriated the skin so much that it of itself was enough to make life miserable.

The vaginal examination revealed a boggy tumor protruding from the vulva, which was evidently the infra-vaginal portion of the cervix, clubbed, and apparently much thicker than normal, but not elongated. Professor Goodell's son, Dr. W. C. Goodell, made the first examination, and succeeded in passing into the bladder, not, however, without eliciting a cry of pain from the patient, a uterine sound, the point of which could readily be felt about three-quarters of an inch from the apex of the prolapsed tumor; demonstrating clearly the presence of a cystocele. A rectocele was also found. The question now arose as to what this tumor was. That it was a prolapsus of the womb was certain—palpation and inspection clearly showing that. But which of the three forms could it be? This could not be ascertained without measuring the uterine canal, which was now done, showing a length of near six inches. Certainly it could not be an inverted uterus or a simple descent. In the one case, there would have been no uterine cavity; and, in the other, the sound could not have shown the fundus to be high up in the pelvis and a uterine canal of over five inches. If it were a simple elongation of the vaginal cervix, it, and it alone, would have composed the tumor, and it could not have pushed forward and been hidden behind a covering of the vagina, as was the case in the history just recorded. Thus by exclusion, as well as by direct evidence, the tumor was proven to be in the main composed of the so-called prolapse of the womb from hypertrophic elongation of the supra-vaginal portion of the cervix.

On the 7th of January the woman was prepared for the operation of amputation of the vaginal portion of the cervix by Hegar's method. Whilst the patient was being etherized, Professor Goodell explained to the students of the ward class present, the ways in which the removal of an infra-vaginal portion of the cervix caused a so-called supra-vaginal elongated portion of the uterus. He said it did good and promoted a cure: (1) By the hemorrhage occurring during the operation, which, depleting the womb, caused shrinkage; (2) the suppuration neces-

sary for the repair of the womb aided in establishing a retrogressive metamorphosis, not only of the womb and its thickened mucous investment, but also of the relaxed and subinvolved vagina, by means of which renewed strength and tonicity were given to the parts; and, lastly, that the rest in bed and the lessened weight of the cervix tended to promote a restoration of the parts to their normal condition. The patient, now fully under the influence of the anæsthetic, was placed upon the table in the lithotomy position, on the left side, a Sims's speculum was introduced and given to an assistant to hold. The womb was brought fully into view and a sound, well curved, was passed into the bladder to determine its situation in reference to the tumor. The cervix was now transfixed, as high up as possible, with a long, straight skewer, and another one was placed at right angles to it. Behind these an elastic noose of rubber tubing was tied to control the hemorrhage, after which, the redundant portion of the cervix was removed in a cone-shaped piece. Stitches of silver wire were now used, extending from the os uteri, as a centre or hub, to the outer portion of the cervix, the stitches resembling the spokes of a wheel. The sutures numbered eighteen, each of which was clamped by a perforated shot, as in the operation of lacerated cervix uteri.¹

The patient fully recovered from the operation without any untoward symptoms. A slight rise in temperature was noted for several days afterward, but it soon returned to normal. As a matter of course, the subsequent discharge was profuse and somewhat offensive. The stitches were left in for a long time in order to promote as far as possible the retrograde change. In this case, the operation did not produce a perfect cure, and when the patient was discharged on the 26th of February, much improved in health, and with a womb measuring only three inches in depth, she was advised to come back later and have performed Alexander's operation of shortening the round ligaments.

Having thus proven that there is a condition of prolapse of the womb which at least resembles a hypertrophic elongation of the supra-vaginal portion of the cervix, we may with advantage ascertain, if possible, the true state of affairs regarding the two points of dispute, viz.: Is this condition a true hypertrophy, and does the change which we know occurs (whatever its nature may be), affect the supra-vaginal portion of the cervix?

In reference to the first question—*Is this condition a true hypertrophy?*—I think I can clearly show that it must be answered in the negative. True hypertrophy implies a change of structure incapable of speedy resolution, which is not the case in the so-called hypertrophied elongation under discussion, for there the reduction in length is remarkably rapid when once commenced.

Again, if this were a true hypertrophy, would the

¹ See "Lacerated Cervix Uteri as Treated at the University Hospital, by Professor William Goodell," in the N. Y. Medical Journal, March 2, 1889.

line of demarcation between the affected supra- and the infra-vaginal portions of the cervix be as plainly marked, separated as it is, in theory only, by the vaginal wall? Most certainly not; for are they not two portions of one continuous structure?

Professor Goodell puts the question even more tersely when he says:

"Is it reasonable to suppose that a merely superficial muscular collar, such as the vaginal attachment, can act like a conjurer's ring, and, by a sort of magic, forbid deeply seated tissue-changes on one side of it from passing through to the other? Rather than be embarrassed by this difficulty," he says, "I much prefer to apply the aphorism of the schoolmen: *quod non habet, dare non potest*—a cause cannot communicate what it does not itself possess."

And he therefore concludes,

"that the elongation, if supra-vaginal, is not communicable, because it is not essentially hypertrophic."

He uses the term *essentially*, because he says:

"I am willing to concede some degree of growth, not primary, but secondary, caused by the irritation of another factor—traction—and by the stasis in the circulation induced by it."

Having thus, I hope, satisfactorily proven the fallacy of an affirmative reply to the first question, let me briefly consider the second and less important one, but one harder to comprehend—*Does the change affect the supra-vaginal portion of the cervix?* To understand clearly this phase of the subject, allow me for a few moments to digress, in order to speak of the changes which occur in the structure of the cervix during both *menstruation* and *gestation*. In the former condition, according to the observations of J. Williams,¹ it appears that at each successive recurrence of *menstruation* a complete removal of the glandular part of the mucous membrane takes place by a process of softening and molecular disintegration which commences *close to, but not in the cervix*, or, at the os internum, and advances progressively toward the fundus during the remaining days of the flow of blood. This fact is of importance, as we shall see presently. In *gestation* the alterations are, of course, more extensive. Here the size, shape, and the position of the uterus, the form and dimensions of its cavity, and the character of its cervix are changed. It is with the latter portion that we have to do. During pregnancy the cervix loses its columns and rugæ; after parturition the enlarged muscular fibres of the uterus undergo a fatty degeneration; but the cervix is affected least by this change, owing to its firmer structure and the difference between the mucous membrane lining it and the cavity of the body of the uterus, between which a marked line of distinction exists, separating the two parts at the isthmus.

¹ Quain's Anatomy, vol. ii, p. 468.

Upon these facts hinges the theory of Dr. Isaac E. Taylor, to whom the profession is indebted for first calling attention to the stability of the cervix uteri,¹ which I have shown is not effaced by gestation or by parturition; nor does the molecular change which periodically occurs in the body of the uterus affect the membrane lining the cervix, but stops short at the line of demarcation between the two separate membranes lining the uterus, as alluded to above.

I quote from Prof. Goodell's book the conclusions which he draws from Dr. Taylor's investigations. He says:

"Dr. Taylor's testimony regarding the autopsy lesions of this disease shows conclusively, if I understood him correctly, that the elongation does not affect the glandular portion of the cervix, but that portion of the womb just above the os internum, at the junction of the body with the neck. In other words, it is the supra-glandular portion of the cervix—the isthmus—which is drawn out from the corpus, and at the expense of its thickness."

Granting that the above conclusions are simply theoretical, do not the anatomical and physiological facts amply bear out the deductions? I think they do most conclusively; and whilst admitting the possibility of a hypertrophy of the supra-vaginal portion of the cervix (not primary), I think the weight of evidence proves that the condition so often recognized by the name of hypertrophic elongation of the supra-vaginal portion of the cervix, is no more or less than a simple elongation or stretching of the body of the uterus just above and including the isthmus, when in the non-involved womb the tissues are thick, soft, and ductile.²

41 NORTH TWELFTH STREET.

MEDICAL PROGRESS.

Treatment of Chronic Urethritis.—In a lecture on the treatment of chronic urethritis, delivered before the Royal College of Surgeons of England by MATTHEW BERKELEY HILL, the lecturer spoke of the results obtained by the use of soluble bougies containing various drugs in amalgamation: Fifty patients had been treated with this remedy, the average number being twelve per patient, although in one case forty-eight bougies were employed. In ten a cure was effected, two were treated by rhatany; one by sulphate of zinc and belladonna; four by chloride of zinc and belladonna; and three by chloride of zinc alone.

Thallin.—Thallin, as prepared in Christy's bougies, was tried in nine cases, with the following result: None were cured, four were made worse, one was slightly benefited, and four were not improved.

Iodoform.—Iodoform bougies were not used in any

¹ Goodell's Lessons in Gynecology, 3d edition, p. 224.

² For a most interesting report of a case of prolapse of the uterus and bladder of fifteen years' standing, from which thirty vesical calculi were removed, see N. Y. Medical Journal, vol. xvi, p. 737.

cases, as they are useless in chronic urethritis, and of little service in acute urethritis.

Permanganate of Zinc.—Permanganate of zinc has been used by the lecturer for several years; it was first recommended to him by Dr. Alder Smith, of Christ's Hospital; he prescribes it in all cases of urethritis, most frequently in the acute form. Notes of its use were taken in seventy cases. Ten were cured by it; in fifty-four it very greatly diminished the discharge; in four it did no good, and in two it made the discharge worse. Its use was particularly marked by the absence of any irritation. It should not be used in strong solution, one grain in eight ounces of distilled water, and should not be prescribed in conjunction with vegetable extracts, as an almost explosive mixture is thereby produced.

Sulphates.—The sulphates of zinc, alumina, copper, and iron are most efficacious in the later stages of gleet. They appear to be easily absorbed, and penetrate deeply into the inflamed tissue. The alumina and zinc salts appear to combine with the discharge without penetrating deeply in the mucous tissue. Sulphate of copper, on the other hand, penetrates deeper, and must not be used in a strong solution, as it causes slough, which leaves a scar behind it. These notes were taken by observations through the endoscope. Sulphate of iron is of no great value but usefully affects the three preceding drugs. Twenty-five cases were treated with the four sulphates, in eight it was the third remedy employed, with four cures and four improvements. Used as the first remedy it cured twice and improved twice. The rest of the twenty-five it either cured or improved, with one exception. In that no improvement was marked. The strength of the solution as commonly used is:

Sulphate of zinc	30 to 40 grains.
Alum	30 to 40 "
Sulphate of iron	20 "
Sulphate of copper	2 "
Water	8 ounces.

Nitrates.—In using solution of nitrate of silver, small instillations are made on the points of the disease previously ascertained. The strength of the solution is from five to twenty-five grains—five to ten minims is the quantity injected. The irritation caused by this injection is unimportant. The effect passes off in a day or two, and must be repeated every third or fourth day until the granular patches no longer exist. Where induration of the submucous tissue exists as well as granular patches, these unyielding parts are stretched in the passing of the bougie before the instillation of the nitrate of silver. The nitrate of bismuth has but a restricted value as an astringent. In some cases it does good, in others none.

Chloride of Zinc.—For the value of chloride of zinc as an injection, forty-three cases were analyzed. In seventeen of the forty-three discharge ceased after its use, in nine others it diminished.

Belladonna, Opium, Cocaine.—Extract of belladonna and extract of opium, long used by the lecturer as sedatives, appear to have but small influence in that direction. Cocaine in five per cent. solution applied before the injection is thrown in, is a very efficient anæsthetic when much pain is caused by the injection. Parenthetically it was remarked that during the acute stages of gonorrhœa, when scalding is severe, the injection of

ten per cent. solution of cocaine into the urethra entirely prevents the scalding pain of micturition.—*British Medical Journal*, June 29, 1889.

Treatment of Herpetic Conjunctivitis.—In cases of herpetic conjunctivitis occurring in children, the following instillation will, according to Dr. Saint-Germain, in *L'Union Médicale*, June 13th, be found most valuable. Under its use the pain quickly subsides.

R.—Borate of soda	grs. ijss.
Sydenham's laudanum	gts. v.
Distilled water	f $\frac{3}{4}$.—M.

Cactus Grandiflorus in Cardiac Affections.—According to the *Rev. de Thér. Méd. Chir.* of June 15th, Dr. GREGORY has used the cactus grandiflorus in functional valvular disturbances with great success and considers it of far greater value than digitalis in such cases. Further, he has also found it most efficacious in cardiac innervation, in strengthening weak, irregular, and tumultuous hearts, especially in cases where the patient is nervously depressed.

Gregory claims that it is an invaluable cardiac tonic, its continued use giving tone and strength to the organ. It has no injurious effect upon the digestive system, and even when used for a long period was well borne by the most delicate stomachs.

Soziodolates in Diseases of the Throat and Nose.—The Swiss correspondent of the *British Medical Journal*, July 6th, states the experiences of PROFESSOR HERMANN SUCHANEK, of Zurich, with the soziodolates of potassium, sodium, zinc, and mercury in nasal and laryngeal disease. His observations agree with those of Fritzsché and Seifert in being very favorable to the new drugs; in particular, the writer found that soziodolatate of potassium, in the form of powder, mixed with talc (1 to 1 or 2), is a valuable nasal insufflation in cases of chronic mucopurulent, purulent, and serous rhinitis with profuse discharge, while the sodic salt is especially useful in tuberculous or lupoid affections of the nose, fauces, and larynx. Soziodolatate of zinc, mixed with talc in the proportion of 1 to 12.5 to 7.5, is said to be an active stimulant of the nasal glands, and hence proves of great service in chronic hypertrophic rhinitis associated with scanty secretion and swelling of the lower turbinated bodies, as well as in cases of senile atrophy of the nasal mucous membrane, in scrofulous rhinitis, and in genuine atrophic and syphilitic ozena. One or two applications of the zinc compound, after the local use of cocaine, often cut short attacks of acute coryza. Further, the zinc salt considerably diminishes the dryness and other unpleasant subjective symptoms in patients suffering from pharyngitis sicca. Soziodolatate of mercury, mixed with talc in the proportion of 1 to 20 or 10, and applied by means of a brush or cotton-wool, may be recommended in syphilitic ulcers of the nasopharynx.

Treatment of Hiccough.—DR. JOHN I. BRINKERHOFF, of Auburn, N. Y., writes to the *New York Medical Journal* of July 6th, that he has found calamus a remedy for hiccough in every case in which he has used it, including some cases of an aggravated character. A

very small quantity suffices, only enough to reach the throat when dissolved by the saliva.

Formulae for Cornutin.—Cornutin, the new uterine haemostatic, may be given either by the mouth or hypodermically. The following formulæ are recommended by the *Journal de Médecine de Paris*, June 16:

I. For hypodermic injection.

R.—Cornutin	gr. $\frac{1}{4}$.
Distilled water	13ijss.
Hydrochloric acid	gts. jv.—M.

Sig. One syringeful for an injection.

II. In pill form.

R.—Cornutin	grs. 1 $\frac{1}{4}$.
Gum arabic paste	3j.—M.

Make into twenty pills. Sig. Two or three at a dose.

New Skin Remedies.—SCHWIMMER has lately, in the *Wiener medizinische Wochenschrift*, published the results he has obtained in certain skin diseases by the use of salol, oxynaphthoic acid, salicylate of mercury, and anthrarobin. Salol mixed with starch in the proportion of two to one he finds a very effective remedy in all forms of venereal sores and in the buboes resulting from them. Iodoform seems to have a more rapid action, but salol has the superiority of possessing no smell. The drug also appears useful in conditions of the mucous membrane of the bladder, when given internally in doses of forty-five to ninety grains distributed through the day. Oxynaphthoic acid did not give good results in venereal cases, acting as an irritant. In scabies, however, it did not irritate, and was an effective remedy. It may be mixed with chalk and soft soap, each ten per cent., with lard. It acted well also in the secondary eczema of scabies, and allayed itching in prurigo. Salicylate of mercury possesses no superiority over the ordinary remedies used in gonorrhœa and venereal sores. Given internally in doses of one and a half to two grains, it was an effective antisyphilitic drug, although apt to cause irritation of the intestine and stomatitis. Anthrarobin was found to have no beneficial effect in psoriasis, but in herpes tonsurans, eczema marginatum, and pityriasis versicolor it acted well, being mixed with collodion in the strength of one to ten.—*British Medical Journal*, June 29, 1889.

To Abort a Felon.—DR. GAUCHER, says the *Therapeutic Analyst*, in writing on the abortive treatment of felon, states that to effect this object it is sufficient to moisten slightly the painful part with a little water, and to pass over this surface a stick of nitrate of silver. In a few hours after the skin becomes black, all pain disappears and the inflammation is arrested. No dressing is required and the black color disappears in six days.

Disinfection of the Hands.—The Paris correspondent of the *British Medical Journal*, of July 6th, writes that DRs. ROUX and REYNÈS have tried the method recommended by Dr. Fürbringer, of Berlin, for disinfecting the subungual portions of the fingers with alcohol at 80° C. After thoroughly washing and brushing their hands and nails with hot soap and water, then with carbolic acid at 10 per 1,000, they scraped the subungual portions with a short, rough, thin wire, previously steril-

ized. The wire was then placed in gelatine, or in agar-agar. Forty-eight hours afterward the cultivations became liquefied, owing to the numerous colonies they contained. This experiment was repeated twelve times, with similar results. The authors then scraped their nails by a mechanical dry process, and after washing and brushing their hands in hot soap and water they washed and brushed them in alcohol at 80° C. After the alcohol evaporated they again washed and brushed their hands in an antiseptic solution. Out of forty experiments, aseptic results were obtained thirty-three times. Out of eight clinical attempts, these results were obtained four times. The authors conclude that the method is superior to that ordinarily employed, and may be applied with advantage in abdominal surgery and gynecology.

Treatment of Chronic Cystitis.—Chronic cystitis has been treated, with great success, by DR. V. MOSETIG-MOORHOF, of Vienna, with iodoform injections. His method of treatment is as follows:

The bladder having been previously irrigated with moderately hot water, an injection of the following emulsion should be made:

R.—Iodoform	50 parts.
Glycerine	40 "
Distilled water	10 "
Tragacanth gum	$\frac{1}{4}$ part.—M.

Sig.—One tablespoonful to a pint of lukewarm water, well stirred, for one injection. Injections should be made every third day.—*Wiener med. Presse*, No. 29, 1889.

Therapeutic Actions of Hydrastis Canadensis.—The latest investigations concerning the therapeutic actions of hydrastis Canadensis, are probably those of DR. M. HEINRICUS, of Sweden; the results of whose experiments are quoted in the *Fortschritte der Medicin* of June 15th.

The author endeavored to determine accurately, by experiments on animals, the action of the drug upon the heart and respiration, and its contractive powers upon the uterus and vagina. In his experiments he either used injections of the pure drug or else diluted it with equal parts of a weak salt and water solution. The injections were made into the jugular vein, and rabbits the animals used. It became apparent that every injection caused a marked decrease in the pressure of blood, but the pressure is gradually regained although not reaching the previous pressure. If large doses are given the pressure sinks rapidly and soon becomes abnormally low and the animal dies. The pulse will remain frequent for some time and it is not until the blood pressure becomes abnormally low, that it begins to get uneven and slow. Cutting of both vagus nerves does not lessen the cardiac action of the drug. Heinricus concludes that hydrastis Canadensis is an active heart poison. It exerts a paralyzing influence not only upon the nervous centres of the vascular walls but also directly upon the heart. After large injections the respirations cease entirely for about ten seconds, then begin again, at first being very shallow but gradually increasing in depth. Small doses strengthen the respirations. The author failed to observe any contraction of either the uterus or vagina to follow the use of the drug.

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SATURDAY, AUGUST 3, 1889.

THE PATHOLOGY OF RELAPSES.

THE rapid advances in medicine so frequently necessitate changes in our previous theories, that they often excite but little notice. Recently our conception of the pathology of relapses, so exactly defined by Gerhardt some fifteen years ago, has been shown to need extension.

Gerhardt restricted the use of the word to those repetitions of a disease occurring after complete subsidence of the first attack but not longer thereafter than the recognized incubation-time of the disease. If the second attack occurred later than this it was thought in all cases to depend upon a new infection from without. The definiteness of this conception brought about its ready acceptance. Recently, however, it has come to be believed that specific microorganisms may remain for a considerable time latent in some portion of the body, and that they may, at a much later time than Gerhardt's definition admits, gain access to the general system and occasion a "relapse" in the true sense of the term. This belief has been the outcome of the finding of specific microorganisms in various lesions, described as sequelæ, a very considerable time after the subsidence of the initial disease. Thus A. Fraenkel obtained active typhoid fever bacilli from the pus of an abdominal abscess five months after the onset of the fever. Similar observations have this year been reported by Ebermaier and Valentini.

In the case of pneumonia parallel observations

have been recorded, the specific germs having been found in the lesions of meningitis, otitis, pericarditis, peritonitis, etc., which occurred as sequelæ of pneumonia. To these an interesting case has lately been added by SENATOR (*Berliner klinische Wochenschrift*, 1889, No. 24, p. 536), in which a seventeen-year-old boy, after recovery from an ordinary attack of pneumonia, developed double median otitis, which persisted for nearly three months. During this time, on two occasions, there were attacks of erysipelatous redness of the face, which could only be attributed to infection from the inflamed ears. At the end of the three months symptoms of meningitis developed and the patient passed through a well-marked attack of that malady. During convalescence from this, pneumonia supervened and the erysipelatous redness of the face returned. Senator considers it proper to speak of this as a *relapse* of pneumonia, notwithstanding the long interval between the attacks, for he believes that the second attack cannot be attributed to new introduction of the infectious microorganisms from without, but must be supposed to have been set up by specific microorganisms existent during all that time in the aural lesion. That the second attack was not dependent upon any residual pulmonary condition after the first attack, was not thought possible, since the left lung was affected during the first attack, the right afterward.

The importance of cases of this kind, of which so many have recently been brought to light, cannot be overestimated as elucidating the dependence of complications and sequelæ upon the same exciting cause as the initial disease. The necessity for modification of our present ideas of the limitations of true relapses is also apparent.

Senator questions whether in another way, also, our conception of a relapse is not too limited. In the consideration of relapses of infectious diseases we rightly attribute greater weight to the exciting cause than to any constitutional or local predisposition which may remain after the first attack. But how are we to regard the repeated attacks of diseases not of infectious nature? Is it proper to speak of a relapse of gout or chorea? *Apropos* of this, not as answering the question, which he admits to be impossible in the present state of our knowledge, but as being a case in point, Senator cites a very curious case of chorea gravidarum, the details of which are given by W. Ruhemann ("Ueber Chorea gravidarum"; Inaug.-Dissert., Berlin, 1889, p. 27). The patient, twenty-five years of age, who had been previously

healthy, developed pronounced chorea, affecting the face and extremities, during the fifth month of her first pregnancy. The attack subsided with the birth of the child at term. A second pregnancy was passed through without disturbance. During the third, however, a return of the chorea occurred, so violent that premature delivery had to be resorted to. In such case should greater weight be laid upon the predisposition to repetition of the disease left from the first attack, or to the supposed exciting cause, pregnancy? It seems to Senator to depend upon the comparative importance attributed to one or the other of these factors, whether such repeated attacks should be spoken of as relapses or not.

Senator leaves the subject in an unsettled condition. The old Gerhardtian idea is shown to be too limited, but as yet it is impossible to propose a thoroughly satisfactory substitute.

PERITYPHLITIS.

IN April, 1887, Dr. T. G. Morton reported a case upon which he had operated for perforative appendicitis. At that time this case was unique in two respects: it represented the first successful result from radical operation and excision of the appendix for perityphlitis, and at the same time presented the first instance of recovery from surgical interference with diffuse purulent peritonitis.

Since the recording of Morton's doubly historical case, successful radical operations for perityphlitic inflammatory affections have, in addition to several others by himself, been reported by Kibler, Dixon, Sands, Nancrede, Brenner, McMurtry, Hoffman, Wylie, Tait, Treves, Burchard, Wiener, Whitman, Hartley, and perhaps one or two others; and surgical interference with all perityphlitic inflammatory processes which have reached the purulent stage is now regarded as an established procedure. Certainly no one would to-day be justified in withholding operation if such condition could be recognized; often, indeed, when its presence could only be suspected.

It is now universally conceded that, practically, all inflammatory disorders of the cæcal region have origin in similar affections of the veriform appendix; which latter arise, as a rule, from kinking, constriction, or irritative contents of that organ producing surrounding inflammation by contiguity, ulcerative rupture, or continuity. Perforation of the appendix is almost always caused by retention and

inspissation of intestinal secretions or excretions in its lumen—very rarely indeed by true foreign bodies, such as date, cherry, or gallstones. These pathological phenomena being conceded, the question naturally arises: Should *all* cases of appendicitis, typhlitis, or perityphlitis (collectively known by the latter term) be operated upon? According to our present knowledge and experience, most assuredly, no; although it is our belief that an appendix which has once behaved treacherously is always after to be regarded as a grave menace and ever-present danger to its possessor, and that a premeditated operation for its removal would in the long run prove vastly more safe than to await the time when, regardless of the surroundings or condition of the patient, surgical interference may have become imperative. Removal of the appendix in an interval between recurring attacks should be attended with but the very slightest risks under experienced hands, but this period should never be awaited in acute cases indicating operation, for the delay to secure the lesser risk of operation would in itself be most dangerous; operation, we believe, is always less dangerous than continuance of the disease.

It is difficult to define just which acute cases come distinctly within and which are without the operative line, but no doubt can at this date assail the general conviction that all cases which have reached a recognizably purulent stage should as quickly as possible be subjected to the knife. General peritonitis arising in a person known to be subject to cæcal trouble, or supervening during a primary attack, would always more than justify instant operation. If the formation of a tumor in the cæcal region is awaited before operating, more often than not the patient will die without being given the benefit of his only chance for recovery. Other symptoms than that of tumor must often be our entire guidance.

Diagnosis is here, as in so many other abdominal affections, the stumbling-block, and in dubious cases more or less chance must direct our efforts until laggard diagnosis can be advanced to the eminent position of operative technique.

So long as the disease is in its early stages and the cæcum maintains its usual anatomical position, operative interference is simplicity itself. Let, however, the suppurative process advance until the general peritoneum and other structures have become involved, or let the cæcum be anomalously situated, and the difficulties which may beset the surgeon are

second to none in the whole range of unfortunate possibilities.

It has been conclusively shown by Treves and others that the cæcum and its appendix are invariably completely enveloped by peritoneum just as are other abdominal viscera, so that any advantages which formerly were thought to be gained by reaching that viscus indirectly cannot now be maintained, and no other than direct abdominal incision can scientifically be employed. According to Morton, the appendix is normally placed immediately beneath a point one and a half inches inside of the right anterior superior iliac spine, and the lateral incision taking this point for its centre (which has been recommended by the same surgeon) has given decidedly best satisfaction and most successful results. It has been found possible to deal with all possible complications through this incision with great facility. A subsequent small median incision may, however, occasionally prove of value for purposes of drainage, but it has been shown time and again to be absolutely impossible to deal with most peri-caecal affections through a median incision alone.

Access having then been attained to the appendix by the lateral direct incision, that organ should invariably be excised whether it is or is not the seat of pathological change. No operation can be called complete or radical unless this is done, for the danger of simply opening and draining a perityphilitic abscess is attested by one of Morton's cases where this was done and the case recovered, but only to again come to him several years later in the very jaws of death, with general purulent peritonitis from a second perforation of the appendix. Radical operation was then successfully performed, and the patient effectually relieved from all future danger.

In excising the appendix it has been proved abundantly sufficient simply to ligate its base close to the cæcum, and then cut it off, not attempting the impossible feat of approximating peritoneal coats over the stump, as has been recommended by theoretical writers. No more danger ensues from thus dealing with the appendix than arises from excising Fallopian tubes in the same manner.

Dealt with by early diagnosis and operation, and in conjunction with an active laxative treatment subsequently, the conditions which we have grouped as perityphilitis are so steadily being robbed of their terrors and fatality that we may anticipate shortly to find them ranked amongst those diseases most amenable to treatment and satisfactory in result.

IT is, fortunately, a rare occurrence for infectious disease to get a foothold in our asylums, but the Maine institution, at Augusta, has been passing through a troublesome experience with diphtheria. The figures, as given by the *Boston Medical and Surgical Journal*, show that there have been sixty-eight cases and fourteen deaths. The trustees have ordered a thorough investigation and sanitation of the infected premises.

THE American Association of Obstetricians and Gynecologists will hold its next annual meeting at the Burnet House, Cincinnati, on September 17, 18, and 19, 1889. No formal invitation will be issued to non-members, but the Association extends a cordial invitation to members of the profession who may feel interested, to attend the meeting and participate in the proceedings. The papers and discussions will embrace subjects pertaining to obstetrics, gynecology, and abdominal surgery.

THE fifty-seventh annual meeting of the British Medical Association will be held at Leeds, on August 13th to 16th next, under the Presidency of Mr. C. G. Wheelhouse, of Leeds. The Address in Medicine will be delivered by Dr. J. Hughlings Jackson, that in Surgery by Mr. T. Pridgin Teale, and that in Psychology by Sir J. Crichton Browne.

Papers from this country will be read in the Section of Surgery by Dr. F. N. Otis, of New York, "A *Résumé* of the Experience of Seventeen Years in the Operation of Dilating Urethrotomy;" in the Section of Obstetrics, by Dr. A. W. Johnstone, of Danville, Ky., "On the Mechanics of Puberty;" in the Section of Otology, by Dr. Clarence J. Blake, of Boston; and in the section of Therapeutics, by Samuel E. Solly, of Colorado Springs, "On the Climate of Colorado."

THE *British Medical Journal* has scored another deserved advance in its circulation, which it announces to have now reached the very large number of 15,550 copies.

WE regret to learn that the *Chicago Medical Journal and Examiner* has suspended publication. The *Journal* was one of our oldest and most esteemed exchanges, and was originally started at Chicago in 1844, by Dr. J. V. Z. Blaney, as the *Illinois Medical and Surgical Journal*. Two years later Dr. S. Brainard and others were added to the editorial staff. In

1858 Drs. N. S. Davis and W. H. Byford became the editors, and its name was changed to the *Chicago Medical Journal*. In 1875 it was consolidated with the *Chicago Medical Examiner*, with Dr. W. H. Byford as editor-in-chief, and later it passed under the editorial control of Dr. Samuel J. Jones.

REVIEWS.

BRIGHT'S DISEASE OF THE KIDNEY. By ALFRED L. LOOMIS, M.D., LL.D., Professor of Pathology and Practice of Medicine, New York University Medical College, etc. Paper, 16mo., pp. 117. Detroit, Michigan: George S. Davis, 1888.

This excellent paper is one of Davis's "Leisure Library," and is much above the average of contributions to that series. The history, the morbid anatomy, and the philosophy of the diseases treated of, are discussed with sufficient detail; the diagnosis is clearly elucidated, and the pages devoted to treatment are eminently practical and trustworthy. The author makes the following division of the subject, which is in accordance with the common practice of clinicians: 1. Acute Bright's Disease. 2. Chronic Bright's Disease, including (1) Parenchymatous Nephritis, (2) Cirrhotic Kidney (Interstitial Nephritis), (3) Amyloid Kidney. While all of Dr. Loomis's views, and especially those with reference to the morbid changes in the heart-muscle most frequently encountered in Bright's diseases, will not meet with universal acquiescence, he leaves the reader in no doubt as to the positiveness with which those views are held, or as to the extensiveness of the data upon which they are based.

SOCIETY PROCEEDINGS.

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Twenty-fifth Annual Meeting, held at New London, Conn., July 17 and 18, 1889.

(Concluded from page 109.)

WEDNESDAY, JULY 17TH.—AFTERNOON SESSION.

DR. H. KNAPP read a paper on

THE TREATMENT OF CARIES AND NECROSIS OF THE ORBIT.

The upper wall of the orbit is the most frequent seat of disease, and here its consequences are most dangerous. In every case of caries and necrosis of the orbit the condition of the neighboring cavities, and especially of the nose, should be carefully investigated. Foci of suppuration should be freely opened, the cavity thoroughly cleansed, and drainage established. This can be well accomplished by small silver tubes provided with flanges. Rough bone should be scraped away with a sharp spoon. Necrosed portions of bone should be removed as soon as they become loose, or when they can be detached without injury to adjacent tissues. The eyeball should be protected, and if there is insufficient closure of the lids, a plastic operation should not be postponed until the cornea becomes ulcerated from exposure.

DR. H. W. WILLIAMS, of Boston, reported a case of MULTIPLE CYSTS OF THE IRIS OCCURRING IN BOTH EYES.

The subject was a girl, nine years of age. In the right eye there was a projection resembling a large cyst extending from the upper margin of the pupil. A similar growth projected from the temporal border. At the inner part there were two small pedunculated growths. All were of the color of the iris. In the left eye, two somewhat oval cysts filled the pupillary space. Through the square opening left in each pupil there was a little oblique vision.

DR. T. Y. SUTPHEN related a case of

SARCOMA OF THE OPTIC NERVE.

The patient was ten years of age. The tumor involved the left orbit, and was of two years' duration. It was of a mushroom shape, and sprang from the optic nerve. Its size was six inches by five and one-quarter inches and two inches thick. It was readily removed with curved scissors. As much as possible of the nerve was removed.

DR. GEORGE C. HARLAN, of Philadelphia, related a case of

EXTENSIVE VASCULAR GROWTH IN THE VITREOUS.

The patient, a woman, aet. fifty years, presented herself November 20, 1888, on account of disturbance of vision. Examination of the right eye showed the fundus to be slightly hazy, with small dull white spots about the macula, the remains of old hemorrhages, but no recent exudation. The disk was obscured by a delicate network of vessels. Otherwise there was no opacity. There was no stroma. Up to March 2, 1889, there had been several retinal hemorrhages, but there had been no change in the vascular membrane. Vision had been reduced to $\frac{20}{LXX}$.

DR. O. F. WADSWORTH, of Boston, related two cases of

EXTRACTION FROM THE VITREOUS OF PIECES OF STEEL BY THE MAGNET,

in which the piece of steel was removed by passing an electro-magnet into the vitreous through an opening in the sclera. In the second case, the operation was followed some weeks later by a separation of the retina beginning at a point opposite that at which the puncture was made.

DR. J. O. TANSLEY, of New York, reported a case in which he had performed

CORNEAL TRANSPLANTATION

for opacity of the cornea. At the first operation the opacity was not removed to its full depth, and, although the cornea cleared to a certain extent, the result was not satisfactory. The operation was, therefore, repeated, but without any improvement in vision. In both operations there was primary union of the graft, and in neither was there any inflammatory reaction.

DR. L. WEBSTER FOX, of Philadelphia, had performed the same operation in a case of opacity of the cornea, where the patient could just distinguish light from darkness. The graft healed readily without inflammatory reaction,

and the patient obtained useful vision and could almost count fingers.

DR. CHARLES A. OLIVER, of Philadelphia, presented

AN ANALYSIS OF SOME OF THE OCULAR SYMPTOMS
OBSERVED IN SO-CALLED GENERAL PARESIS.

These observations were made on twenty well-marked cases of general paralysis of the insane. The study was limited to subjects in the so-called second stage of the disease, where the psychical symptoms had become of such a character as to necessitate control, and where motor and sensory derangement had become more or less manifest. Care was taken that each subject was seemingly free from any extraneous general disease or local disorder, and the entire study was limited to the male sex, so as to escape any conflicting and complicating changes that might appear in connection with the many diseases peculiar to the female sex. Thirty observations were made, resulting in the following summary:

1. The sensory changes described, which have been limited to unequal optic nerve degenerations, decrease of retinal circulation, with subnormal direct and eccentric vision for both form and color, distinctly show lowered sensory response.

2. The motor symptoms, consisting in unequal and feeble movement of the irides, causing inequality and irregularity of pupillary areas; the peculiar form of ataxic nystagmus; the slight loss of ciliary tone, all express want of proper muscle action—true paresis.

3. The peculiarly local conditions shown in the fundus, such as the pigment massings, the crescents of absorption, the disturbed and granular condition of the choroid, etc., all indicate wear and tear of an abused and irritated organ.

4. Therefore these observations upon the ocular apparatus, which were most probably made during the second stage of the disease known as general paralysis of the insane, show not only local changes, but distinctly demonstrate that the series of sensory motor disturbances found are but the peripheral expressions of one of the many indices of gradual loss of neural strength and power in this disease.

DR. SUTPHEN related

A CASE OF DOUBLE PURULENT CHOROIDITIS RESULTING
FROM MENINGITIS.

February 23, 1887, was called in consultation to see G. W. B., a robust farmer, aged thirty-nine years. He had always been healthy with the exception of an occasional "bilious headache." Never had any specific trouble. The history was, that on February 9th he came in at noon perspiring very freely; that evening he suffered with intense headache. The next morning he was apparently well, but at breakfast had a violent chill with aching of the whole body. This was followed by high fever. Leaving the breakfast table was the last that the man remembered for three months. From this time the patient rolled and tossed in bed without decided delirium, but being in a stupid condition and easily restrained. Questions were answered only after frequent repetition and the replies ran into complete incoherence. On the third day of the illness the body became quite rigid, with the head thrown backward. On the fourth day, the left hand and forearm became swollen and the right eye inflamed; the left eye became inflamed on the

tenth day. Later the left foot became swollen. The swelling of the hand and foot lasted about a week and then subsided. The fever then became less violent and the general condition improved, but the mental sluggishness remained. There was no paralysis, no convulsion, no vomiting. At the end of the third week he had a slight chill, and another after he was out of bed.

At present the man is apparently in good health. He has lost none of his functions and the mind is perfectly clear. When first seen by the writer the eyes were in the following condition: No swelling of the lids; moderate periorbital injection; cornea clear; anterior chamber normal in depth; irides slightly discolored; pupils moderately dilated, with a yellowish reflex from the anterior portion of the vitreous. There was no perception of light, no tenderness on pressure, but a marked lessening of the tension of the globe. Three days later, the anterior chamber in each eye was obliterated by pressure from behind the lens; the eyeballs being harder than normal. One week later, the anterior chamber was again restored and tension had again fallen much below the normal. From that time there was progressive atrophy of both eyes until now there is left only the greatly shrunken globes, with, of course, absolute blindness.

In this case there must have been an extension of the intracranial inflammation along the sheath of the nerves and not a forcing of the products of inflammation forward, as sufficient pressure within the cranium to produce this must evidently have become apparent by more or less paralysis.

The case is reported as a clinical contribution to this somewhat rare and obscure trouble, which is certain to be met with in the course of practice.

THURSDAY, JULY 18TH—MORNING SESSION.

DR. C. S. BULL presented a contribution to the subject of

TUMORS OF THE ORBIT AND NEIGHBORING CAVITIES.

Case I. was an adeno-sarcoma of the lachrymal gland. It was operated on two years ago. There has been no return.

Case II. was one of abscess of the ethmoid cells, frontal sinus and orbit in a male aged forty-six years. It was opened, washed out, and drained. There was perfect healing.

Case III.—Tumor of the maxillary antrum, nasal fossa, ethmoid cells, orbit and cranial cavity. The eye was enucleated and the maxillary antrum cleaned out. A large opening was found through the orbit into the anterior fossa of the skull and through this the tumor extended. The evening following the operation the patient became comatose, and died the next morning.

DR. KNAPP thought that the report of these cases shows the necessity of early operation in all cases of tumors of the orbit or near the orbit.

DR. B. A. REEVE, of Canada, said that in a number of these cases of empyema of the frontal sinus he had found hypertrophy of the middle turbinated bone. This is a point of importance in etiology and prophylaxis.

DR. BULL then reported a case of

DOUBLE CHOKED DIK, DUE TO INTRACRANIAL TUMOR,
WITH AUTOPSY.

The patient, a married woman, twenty-three years

of age, was seen June 30, 1888. In February, 1888, had a miscarriage and was quite ill for a couple of weeks. There was dull headache at vertex. This became more severe. During April there were occasional attacks of diplopia. During May there was failing vision. When

examined, $V = \frac{18}{xx}$ in each eye. Accommodation was normal. There was no peripheral limitation of the field of vision either for form or color. There was an irregular negative scotoma for all colors. There was marked exudative neuro-retinitis with hemorrhages in both eyes. Urine proved normal on examination. The only symptoms of intracranial disease were the lesions of the optic nerve and the headache at the vertex. The diagnosis was intracranial tumor at the base of the brain. Vision rapidly failed, and by September 25th there was no perception of light. The mental faculties gradually became impaired. Right hemi-anesthesia came on. The patient died May 5, 1889. Autopsy showed a tumor involving the corpora quadrigemina and extending to the anterior crura of the cerebellum. The growth appeared to be a glio-sarcoma.

DR. MYLES STANDISH, of Boston, reported five cases of

PARTIAL TENOTOMIES IN CASES OF NEURASTHENIA WITH INSUFFICIENCY OF THE OCULAR MUSCLES,

in which he had performed this operation on account of constant headache, inability to use the eyes, and neurasthenic symptoms. In all but one there was marked and prompt relief of the local and general symptoms by the operation.

DR. E. E. HOLT, of Portland, called attention to the

EFFECT UPON THE ACCOMMODATION OF A PATIENT'S EYE CAUSED BY LOOKING INTO THE MIRROR SET OBLIQUELY IN THE ROOM DURING THE OPHTHALMO-SCOPIC EXAMINATION.

Directing the patient to look with one eye into a mirror set obliquely while the other was examined with the ophthalmoscope, an element of ease was found in making the examination and of comfort and steadiness on the part of the patient never experienced before. The eye fatigues quickly in looking at a single object. Looking into the oblique mirror gives the impression of gazing into the distance. A notable change in the pupil will be observed when the patient is directed to look at an object at the distance of the mirror and when he is directed to look at objects reflected from it.

DR. O. F. WADSWORTH, reported a case of

PARALYSIS OF THE SPHINCTER IRIDIS

without affection of the accommodation, lasting several months, and following the instillation of homatropine in both eyes.

DR. THEOBALD thought that in all such cases it is important to exclude malingering. It would be possible for the patient by the use of a weak solution to keep up the mydriasis without affecting the accommodation.

DR. S. RISLEY said that another practical explanation of such cases is the use of a pipette previously used for a solution of mydriatic for a solution which contains no mydriatic.

DR. THEOBALD called attention to

THE EMPLOYMENT OF OLEATE OF VERATRIA TO FACILITATE THE DETERMINATION OF ERRORS OF REFRACTION.

A mydriatic affords valuable aid in myopia and in hypermetropia, but in astigmatism its use is not so satisfactory. In astigmatism he had found great help from the use of a ten per cent. oleate of veratria to the temple and forehead once a day for three or four days. This seems to exert a quieting effect upon the ciliary muscle, and especially of the radiating fibres, and lessens the tendency to asymmetrical accommodation. The following rule was formulated in regard to the correction of astigmatism. When the astigmatism is according to the rule, we need correct only that which is readily made manifest. On the other hand, in astigmatism against the rule, we are warranted in correcting fully every part of the defect which can be rendered manifest.

DR. HOLT called attention to

THE INEFFICIENCY OF HYDROBROMATE OF HOMATROPINE IN CONTROLLING THE ACCOMMODATION FOR THE PURPOSE OF FITTING GLASSES.

His experience was that this drug could not be relied upon. He reported one case in which the latent hypermetropia revealed by three per cent. solution of hydrobromate of homatropine was just one-half of that revealed by a one per cent. solution of atropia.

DR. EDWARD JACKSON, of Philadelphia, had found homatropine entirely satisfactory when used properly. The instillations must be repeated at short intervals, five or ten minutes, and three or four instillations practised. The effect rapidly passes off, and the examination must be made within one or two hours. He had followed the use of homatropine by another mydriatic without alteration in the result.

DR. JACKSON now read a paper on

AMETROPIA AS DETERMINED UNDER COMPLETE MYDRIASIS.

He had examined 4000 eyes under complete paralysis, and presented the following table of his results, these were compared with results obtained by another observer without mydriasis:

	With mydriasis.	Without mydriasis.
Compound hyperopic astigmatism	40 per cent.	93 per cent.
" myopic	9 "	11 "
Simple hyperopic	6 "	16½ "
" simple myopic	2 "	24 "
Mixed astigmatism	6½ "	2 "
Hyperopia	31 "	10 "
Myopia	4 "	9½ "
Emmetropia	1½ "	17½ "

DR. W. F. MITTENDORF, of New York, related

A CASE OF AMBLYOPIA DUE TO CHLORAL HYDRATE.

His object was to put on record a case of toxic amblyopia, due to chloral hydrate. The patient had for six months been in the habit of taking from forty to sixty grains at night to induce sleep. Suspension of the drug relieved the amblyopia.

EXECUTIVE SESSION.

The following were elected

OFFICERS FOR THE ENSUING YEAR.

President.—Dr. Hasket Derby, of Boston.

Vice-President.—Dr. George C. Harlan, of Philadelphia.

Secretary and Treasurer.—Dr. Samuel B. St. John, of Hartford.

Corresponding Secretary—Dr. J. S. Prout, of Brooklyn.
Delegate to the Ex. Com. of the Congress of American Physicians and Surgeons.—Dr. John Green, of St. Louis.
Alternate. Dr. D. B. St. John Roosa, of New York.

The Society then adjourned, to meet at the Hotel Katerskill, on the third Wednesday of July, 1890.

FIRST CONGRESS OF THE GERMAN DERMATOLOGICAL SOCIETY.

Held in Prague June 10 to 12, 1889.

(Specially reported for THE MEDICAL NEWS.)

THE First Congress of German Dermatologists was officially opened in Prague on Monday, June 10th, under the Presidency of Professor Peck, of the University of Prague. More than eighty dermatologists from all parts of Germany and Austria were present, as well as from America, Russia, and Japan. All the professors of the University of Prague and most of the physicians of that city were also present.

DR. ARNING, of Hamburg, read a paper on the

INOCULATION OF LEPROSY.

He gave some information about the first successful inoculation of leprosy which he made in 1884, at the Sandwich Islands, and from which he had just received news. In 1884 the Minister of the Sandwich Islands placed at his disposal a murderer who had been condemned to death, who had never had leprosy, and whose family was exempt from any hereditary contamination. In the contract he had it inscribed that the subject on which the experiment was being made would be kept for several years in a well-ventilated and healthy prison, separated from all the other prisoners, so as to exclude all subsequent accidental contamination. He implanted in several parts of the man's body fragments, of leprous skin; moreover, he inoculated leprous pus into superficial bullæ and punctures, as in vaccination. The infectious matter was derived from a small girl, nine years old, who presented a tuberculous leprosy, and who had just had a severe leprous fever. The vaccinations in the artificial blister and punctures gave negative results. On the other hand, in the fourth week after the inoculation, the disease developed itself under the form of a subacute articular rheumatism, first in the flexed portion of the left elbow (the implantation of the fragment of skin had been done on the left arm), then in all the articulations, and persisted for four months; then there appeared along the ulnar nerve characteristic swellings, which disappeared after six months. During this time there developed at the seat of vaccination, the cicatrix of which presented the appearance of a keloid, a typical leprous nodosity, of the size of a pea, in which was found an enormous number of leprous bacilli. He could not admit that they were only derived from the implanted skin, for after sixteen months this nodosity contained just as large a number. After he returned to Europe a revolution occurred in the Sandwich Islands, and the physician of the prison was displaced. This physician writes that, according to his memory, his notes having

been destroyed, that the leprosy inoculated in 1884 made great progress, and from the last news, which he received in March, 1889, the patient was in a state of leprous marasmus.

This inoculation, he added, however, is not beyond objection, for the individual might have been predisposed to it from belonging to a favorable race, and living in a country where leprosy exists, and perhaps the individual or climatic predisposition is of great importance in the final success of the inoculation. This prevented him from drawing conclusions as to the inoculability of leprosy.

DR. NEISSE, of Breslau, spoke on the

IMPORTANCE OF THE GONOCOCCUS FOR THE DIAGNOSIS AND TREATMENT OF GONORRHœA,

which microbe was discovered by himself. He recognized the existence of urethral inflammations due to physical or chemical irritants as well as the presence of other species of microbes, and has tried to establish the three following facts:

1. Is the gonococcus the real virulent agent of the disease? To this he replied affirmatively, for this microorganism is always found in contagious blennorrhagias; still it can be found associated with other microbes, but the different clinical character of these mixed infections demonstrates the specific character of the gonococcus. Lustgarten and Mannaberg have seen in certain cases of urethritis in man diplococci which very much resemble the gonococci, but from a bacteriological point of view the microorganisms were different, for these diplococci develop themselves on substances which are usually employed as cultures for microbes, while the gonococci can be cultivated only on blood serum.

2. Why is the number of gonococci not in relation with the importance of the suppuration? Suppuration being nothing else but the reaction of the mucous membrane against the gonococci, one can understand that on a second or third infection the mucous membrane will react more slowly than in a first attack, although the number of microorganisms may be very large.

3. Can one rely on the presence of the gonococcus to establish a differential diagnosis? The answer is affirmative again, for the presence or absence of the gonococcus is of great importance in certain doubtful cases, especially in those that belong to legal medicine or to the administrative hygiene of prostitutes. The infection must be combated as early as possible, without affecting the mucous membrane. This is the first and important therapeutic rule, the patient must then be treated in the acute stage, and the medical treatment must be stopped as soon as it is demonstrated that the gonococci have disappeared. Injection of nitrate of silver is the best treatment according to the author.

DRS. STEINSCHNEIDER and GALEWSKI recommend to establish a differential diagnosis between the diplococci and gonococci, Gram's method of coloring with Bismark brown being followed.

DR. FINGER, of Vienna, said that in most of his cases of blennorrhagia he had found the gonococcus present, but in other rare cases these microorganisms were replaced by other bacilli; this might have been due to the fact that the disease had existed for a long time, as we know that gonococci are to be found more especially in parts recently involved. A good clinical sign to differentiate pseudo-blennorrhagia from blennorrhagia is that

in the first case the acute symptoms are absent and even so at the very beginning.

DR. OBEX LAENDER, of Dresden, said that the diagnostic value of the presence or absence of the gonococcus in gonorrhœa is unquestionable, but its absence in chronic cases is not a proof that the disease is or is not more virulent; that is why he thought that in such cases urethroscopy of great service; it is also useful when the secretion has become intermittent. In any case he thought that no method ought to be used to the exclusion of the other; and as to the rational treatment, we must principally observe the alteration of the mucous membrane.

DR. GRUNFELD, of Vienna, did not think it necessary to search for gonococci; but it is necessary to make a diagnosis of the local lesions by means of the endoscope, for this allows us to know exactly what parts are really involved. As to the good results of the early injections of nitrate of silver, he indorsed what had been said by Dr. Neisser.

DR. VON ZEISS, of Vienna, thought that the gonococcus of Neisser was the real cause of gonorrhœa, but this fact has not been absolutely demonstrated; and we must be still more on our guard, since the publication of the researches of Bockhardt on pseudo-blennorrhagia. He had also observed cases in which there were diplococci, which, on staining, took up exactly the same color as Neisser's gonococci; before identifying these last, he thought it necessary to repeat the experiments before establishing definitely the absolute value of Neisser's gonococcus.

DR. KLOTZ, of New York, thought endoscopy the method which when employed in the treatment of chronic gonorrhœa was attended with the most success.

DR. FRIEDHEIM, of Leipzig, held that injections are the best mode of treating gonorrhœa, because they act simultaneously on the secretion and on the gonococci. He thought, like Dr. Neisser, that we must destroy the microorganisms without wounding the mucous membrane; for this reason he recommends salicylate of mercury 1:270; the salts of thallin in suspension, etc. At the beginning of the treatment he gives injections of corrosive sublimate, which are afterward replaced by injections of zinc, tannin, etc.; yet he thinks that the surest remedy in gonorrhœa is nitrate of silver.

DR. NEISSEN said that endoscopy may render service, but it is very difficult of application. Urethroscopy he considered of little value.

DR. JACOB, of Breslau, demonstrated that certain alterations of the vaginal mucous membrane in prostitutes, which have been described in M. Oberlaender's work as being of a specific nature, have not such an origin.

DR. PICK, of Prague, read a paper on

THE TREATMENT OF ECZEMA.

He employs, to prevent the irritation of the involved parts, in the acute period, corrosive sublimated gelatine, which allows the patient to go on with his daily occupation. If the exudation is an extensive one, he applies the saponified salicylic acid plaster all over the body, and keeps it in place by bandages which are allowed to remain six or eight days in position, and the patient is allowed to get up and walk about. The dressing must be changed when the patient experiences a burning sensation.

This treatment gives good results, as the affected parts are protected against external influences.

DR. PICK also spoke on

THE TREATMENT OF LUPUS.

He presented a patient suffering from lupus who, on entering the clinic, had a number of tumors on the body; several of these were removed, but the diagnosis was not easy, and a histological examination demonstrated the presence of giant-cells and miliary tubercles.

DR. DOUTRELEPONT, of Bonne, said that they often find on the borders of the Rhine cases similar to the one just described, where lupus tumors very much resemble sarcomatous tumors; the finest giant-cells are found more especially in the glands, in which regions the tubercle bacilli agglomerate in greatest number. He thought that lupus can be cured if the patient be placed in good hygienic condition. All the patients while at the hospital have no return of their trouble, but as soon as they are allowed to return home the disease recurs; this he attributes to their poor social condition. He has treated several patients, who for the first five or six years have had no recurrence. The treatment which he employs consists in topical applications of corrosive sublimate; but the disease being a long-lasting one, he curettes very deeply, and from fear of a miliary tuberculosis, also cauterizes with Paquelin's cautery, and then prescribes hot fomentations. If, after the application of the corrosive sublimate and the renewal of the crust, there are still granulations presenting a bad appearance, he uses pyrogallic acid, which he replaces two or three days later by corrosive sublimate applications, and then continues this treatment, using alternately one or the other remedy, until the obtained cicatrix becomes a perfect one. Sometimes lupus will give rise to a general infection with fever, swelling of the lymphatic glands, diarrhoea, etc., but such cases are very rare.

DR. LESSER after having well curetted the parts, cauterizes with a strong solution of nitrate of silver, which is indicated in order to prevent general infection.

DR. TOUTON thinks pyrogallic acid ointment the best means to destroy the bacillus. He applies it for three days preceding the scraping or curetting; afterward he uses the corrosive sublimate solution 1:1000 for the first day and then the 1:5000 solution.

DR. PICK, like Dr. Doutrelepong, has seen that the physical condition of poor patients became much better during their stay in the hospital; but he did not attribute this change to the better sanitary condition in which they are placed, but rather to the period of the disease. If the lupus is unique and constitutes a primary process, the best results can be obtained if the disease is immediately removed, but if the disease depends upon a general tuberculosis, one cannot hope to do very much good. He thought that the seat of the lupus is not an indifferent one, and lupus of the nose, especially the one which involves the mucous membrane appears to him very grave. As for the treatment, he prefers ablation to scraping out, for after this operation he has seen the occurrence of a few cases of miliary tuberculosis, which rapidly terminated in death. As caustics, for the last twenty years, he has used potash with lime, which gives cicatrices without recurrence; this does not mean that there is no trouble of the recurrence of the trouble, but he has never seen it in the cicatrix itself. After the cau-

terization he used to employ a sublimated ointment, but for some time past he has allowed the crust to remain undisturbed with no bad results; when the crust falls he applies balsam of Peru.

AMERICAN MEDICAL ASSOCIATION.

*Fortieth Annual Meeting, held at Newport, R. I.
June 25, 26, 27, and 28, 1889.*

(Specially reported for THE MEDICAL NEWS.)

SECTION OF OPHTHALMOLOGY.

DR. GEORGE E. FROTHINGHAM, of Michigan, Chairman, in opening the Section, delivered an address upon

THE NEED OF DISCUSSING OPHTHALMIC SUBJECTS,

in which he referred to some of the many still mooted points in ophthalmology requiring the exercise of the joint wisdom of the profession for their elucidation.

DR. ROBERT TILLEY, of Chicago, then read a paper entitled

WHAT CAN WE DO TO MAKE THE CENSUS OF 1890 CONTRIBUTE EFFICIENTLY TO A CLEAR CONCEPTION OF THE CAUSES OF BLINDNESS IN THE UNITED STATES.

He urged the importance of more reliable statistics as to the causes of blindness, especially as to contagious ophthalmias, and other clearly preventable diseases; that more definite knowledge in this direction was required, before the profession could advise the public as to what measures of prophylaxis should be resorted to, and how urgent was the need of their adoption; and he urged that the present opportunity for extending our knowledge in this direction should not be wholly lost.

An investigation having the scope indicated by the twenty-seven questions proposed by Magnus, though carried out only in certain most thickly settled and readily accessible parts of the country, would elicit facts of great value. The takers of the general census might ascertain the names and residences of all persons in the community who had suffered functional loss of one or both eyes, together with the general facts as to nativity, former residence, etc.; and could furnish a full list of such persons to a qualified medical man who could continue the investigation as to completeness of the blindness, diagnosis, causation, the general medical history, etc.

The Section, at Dr. Tilley's suggestion, appointed a committee to act in conjunction with a similar committee to be appointed by the American Ophthalmological Society to confer with the Superintendent of the Census, and urge any practical plan of improving the census statistics as to blindness. This action was endorsed by the general session of the Association.

DR. A. E. PRINCE, of Jacksonville, Ill., spoke of

THE PREVENTION OF PAIN AND THE IMPROVEMENT OF THE STUMP FOLLOWING EVISCERATION OF THE EYE.

He found evicseration to be an efficient substitute for enucleation, safer, and to be recommended, perhaps, in all cases where there was no suspicion of malignant disease, as likely to furnish a better stump. A serious objection had been that there was more pain after it than after enucleation. This was probably due to the

involvement of the ciliary nerves in the inflammatory reaction. At all events it had been greatly diminished by thoroughly cauterizing the inner surface of the sclera, at the end of the operation, by carbolic acid.

In applying the artificial vitreous shells proposed by Mules for use after evicseration, Dr. Prince had found that, although the result was for a time satisfactory, in many cases the tissue over the shell underwent absorption, the cicatrix gave way and the shell was ultimately extruded. As the shell came away, however, its place seemed to be at least partly filled with a mass of granulations, which subsequently condensed and contracted, but in the end gave a rounded and fuller stump than was obtained when an artificial vitreous shell was not used. This observation had led him to pack the scleral cavity with iodoform instead of introducing the glass shell, and this simpler procedure had given the same satisfactory result.

DR. H. W. WILLIAMS, of Boston, spoke on the

ADVANCES IN OUR KNOWLEDGE OF SOME CEREBRAL OCULAR AND INTRA-OCULAR LESIONS, WHICH FACILITATE THE DIAGNOSIS AND TREATMENT OF IMPORTANT DISEASES.

He reported a number of cases that had fallen under his observation, mainly of brain tumor with optic neuritis, in which the diagnosis founded on the ocular symptoms had been verified by autopsy.

DR. J. L. THOMPSON, under the heading

SOME CASES OF INFLAMMATION AND ATROPHY OF THE OPTIC NERVE,

reported a series of cases allied to those of Dr. Williams.

DR. E. J. GARDNER, of Chicago, then spoke on

THE NON-SURGICAL TREATMENT OF STRABISMUS CONVERGENS.

The careful correction of all ametropia, and the continuous wearing of the correcting glasses, without resort to other measures, had been tried in a series of cases by him with complete success in a considerable proportion of cases and marked improvement in many others. He regarded orthoptic exercises, which had not been used in any of these cases, as also of considerable value, and believed that such measures should always be tried before resorting to operative interference with the eye muscles.

DR. LEARTUS CONNOR, of Detroit, read a paper upon

TOBACCO AMBLYOPIA.

Most cases of it occur, he said, in persons addicted to the use of both alcohol and tobacco in excess. It has, therefore, been claimed that alcohol, which is known to cause definite organic changes, should be held responsible for it. He reported two cases of it, quite typical, with central scotoma for colors, and lowered vision, in which the patients smoked excessively but used no alcohol. One was that of a florist, fifty-five years old. Vision had been impaired for three months, and was reduced to R. $\frac{20}{C}$, L. $\frac{18}{CC}$; but the physiological action of nitrite of amyl, proposed as a diagnostic test by Mr. Henry Power, brought it up to $\frac{20}{L}$. Complete discontinuance of the tobacco and the use of strychnia brought about a

complete restoration of the fields for color vision, and vision equal $\frac{20}{XX}$ in four months.

In the second case, a clergyman, forty-three years old, also a hard smoker, but not using alcohol, three months ago had vision equal R. $\frac{4}{CC}$, L. $\frac{20}{CC}$; and complete oval color scotoma. Under similar treatment, the color scotoma had disappeared and vision had risen to $\frac{20}{XXX}$. Both of these patients had just prior to the development of the amblyopia been subjected to mental depression under which they had lost appetite, and had taken less food and smoked more freely than usual.

Dr. Connor had been able to collect twenty-seven cases of this kind of amblyopia in users of tobacco, but not alcohol; and but one case of central amblyopia in a drinker who did not use tobacco. Then there were twenty-five cases of recovery while still using alcohol, but abstaining from tobacco. He had seen no case of the amblyopia in a woman who did not both drink and use tobacco.

DR. H. KNAPP, of New York, thought it was pretty well established that this form of amblyopia was due to a limited retro-bulbar neuritis. There were three stages presenting different ophthalmoscopic appearances, the first giving no change in the appearance of the disk, the second showing a triangular area of pallor or atrophy of the disk toward the temporal side or macula, the third showing the appearance of an ordinary simple atrophy. Recently he had found this typical triangular area of atrophy in the eye of a young lady who neither smoked nor drank. But on further examination he discovered that there was a complete coloboma of the region of the macula. So that this interesting anomaly confirmed most beautifully the observations as to the real significance of this limited area of pallor.

DR. MYLES STANDISH, of Boston, had reported a case in which this retro-ocular neuritis had been followed shortly by general paralysis from multiple alcoholic neuritis. He believed that the occurrence of the amblyopia in any case should be regarded as evidence of a tendency to peripheral neuritis in general, that required the complete discontinuance of the use of alcohol, as well as of tobacco.

DR. P. D. KEYSER, of Philadelphia, had seen a case in which each attempt to smoke caused intense nausea, but the attempt to establish a tolerance for the drug was persisted in until what seemed to be a tobacco amblyopia supervened.

DR. J. J. CHISOLM, of Baltimore, had seen this form of amblyopia in a man who smoked but half a cigar a day, because any larger amount made him sick. He could not say that the occurrence of this failure of sight depended upon the use of any certain amount, although the amount required to produce it was generally large. He had not seen it except in persons who had used tobacco many years; had seen a case in a woman who smoked regularly. Formerly he had believed that it was not produced by chewing alone, but had recently seen cases in which this was the only way that tobacco was taken.

DR. A. BLITZ had seen a case in a woman who regularly used snuff. Recovery occurred under abstinence and the use of strychnia.

DR. E. J. GARDNER had seen tobacco amblyopia in the case of a clergyman who used no liquor. In this case no decided improvement occurred until strychnia was given in doses of one-third of a grain, hypodermically, every second day. This dose at first caused no inconvenience, but as vision improved the dose had to be diminished.

DR. S. C. AYRES, of Cincinnati, reported two cases of

MYXO-SARCOMA OF THE OPTIC NERVE,

one with small round, the other with small spindle cells, which he had removed, and which had neither of them shown signs of recurrence. The eyeball was in both instances removed with the growth, though not involved in it. He also gave a full *résumé* of all previously reported cases.

DRS. P. D. KEYSER, J. A. LIPPINCOTT, and J. L. THOMPSON reported cases they had excised without subsequent return.

NEEDLESS AND ANNOYING RESTRAINTS AFTER EYE OPERATIONS.

DR. J. J. CHISOLM, of Baltimore, under this title read a paper urging that more attention should be paid to the principle of treatment, that the ordinary course of living when in health should be disturbed as little as possible during the period of recovery from surgical interference with the eye, and that the dark room, bandages, and confinement to bed are ordinarily quite unnecessary if not positively injurious after even the capital operation on the eye.

GLAUCOMA FULMINANS AFTER CATARACT OPERATIONS WITH IRIDECTOMY.

DR. P. D. KEYSER reported two cases in which after the modified Graefe operation the eyes seemed to be doing well until, in one on the fifth day, in the other on the ninth day, hemorrhage occurred and the tension rose to + 3. One eye was thus destroyed, but the other was saved by an early additional iridectomy.

RESPECTING THE DETERMINATION OF THE DEVIATIONS IN STRABISMUS, AND THEIR TREATMENT.

DR. G. T. STEVENS, of New York, urged that the method of measuring the deviation by the prism required to bring into line the double images, was superior to all other ways of estimating the amount of squint. By careful trials, diplopia could be secured in almost every case. Where the degree of squint was very high a partial correction should be secured by one or more partial tenotomies or advancements, and then an accurate determination of the remaining deviation could be made. In but few cases was the deviation purely lateral. The result to be aimed at in all cases was not simply cosmetic, an apparent straightening of the eyes, but the restoration of normal binocular vision.

DR. E. JACKSON, of Philadelphia, thought that here, as in other parts of ophthalmology, an objective test had great advantages over a subjective test; and that probably a tenotomy did good simply by crippling the muscle involved. Even a partial tenotomy may accomplish this.

DR. A. BLITZ, of Indianapolis, reported

A TYPICAL CASE OF OCULAR IRRITATION CAUSED BY CHRONIC RHINITIS, RELIEVED BY TREATMENT OF THE NASAL TROUBLE.

Soothing applications failed to benefit, but the application of the galvano-cautery to the diseased nasal tissue gave prompt relief.

PHILADELPHIA ACADEMY OF SURGERY.

Stated Meeting, June 3, 1889.

J. EWING MEARS, M.D., IN THE CHAIR.

DR. T. G. MORTON reported the following case of

COMPOUND COMMUNICATED FRACTURE OF THE FOREARM ; COMMUNICATED FRACTURE OF THE HUMERUS ; UNRECOGNIZED DISLOCATION ; SUBSEQUENT SUTURE OF THE NECK OF THE HUMERUS ; RECOVERY.

Fred. O., aged twenty-four, was admitted into the Pennsylvania Hospital, December 1, 1888, with a severe shock and extensive injuries, resulting from being caught in the belting of machinery. There was a compound comminuted fracture of the forearm about the middle third, the ulna was found protruding some two inches ; also a comminuted fracture of the humerus which involved the elbow-joint, and extended above the middle of the bone. The protruding portion of ulna could not be reduced until after a free division of skin and a portion of bone was removed. The swelling of the arm and shoulder was so great that it was impossible to make any further diagnosis other than that of a very extensive injury of the soft parts about the shoulder and comminution of the humerus. The limb was elevated and lead water and laudanum applied ; subsequently a dislocation of the head of the humerus was made out, but owing to the serious nature of the injuries of the arm and forearm no attempt was then made at reduction—some weeks later when union had taken place the head of the bone was found attached to the tissues. The arm was practically useless so far as shoulder motion was concerned. March 14, 1889, he was admitted to the Orthopedic Hospital ; two days later he made a vertical incision through the deltoid down to the head, and found it so firmly attached in the abnormal position that it was not possible without the greatest risk to attempt to dislodge it. He then carried a chain saw around the bone at the anatomical neck and sectioned the shaft obliquely from below upward and then readily placed the divided end in the glenoid cavity. A rubber drain was placed in the wound, which was closed with gut sutures. The wound united promptly ; a slight sinus remains. Massage and electricity have done much for the feeble muscles, now much improved, and a fair amount of motion in the shoulder has resulted—this is constantly improving. The patient has been since the operation quite free from pain and bids fair to have a very useful arm. Dr. Morton has been unable to note that any trouble has arisen from the presence of the head of the bone in its unnatural position.

DR. MEARS said that he reported a case some years ago in which he made a subcutaneous section of the neck of the bone for old subcoracoid luxation. The result was excellent. The patient had good motion and

relief from pain and also from the atrophy, which was progressing at the time of the operation.

DR. MORTON said that in regard to dislocations, he had an interesting case at the Pennsylvania Hospital, where the head of the humerus was entirely broken off from the shaft and dislocated in the axilla. He made an incision and removed the dislocated head. The injury was produced by a shutter falling from a distance and striking the shoulder just below the acromion. The patient was seventy-two years of age, and some four weeks after the accident died from catarrh of the bowels.

DR. MORTON also reported a case of

DOUBLE OPERATION IN A CASE OF DOUBLE EQUINO-VARUS.

Recently, in a case of double equino-varus, he concluded to perform the double operation—the result was most satisfactory. The little patient, four years of age, was admitted to the Orthopedic Hospital May 9, 1889. He walked upon the dorsi of the feet, on which large and dense bursa had formed. The feet were cleansed and covered with a mercuric solution 1:2000 for several days prior to the operation.

On May 12th, the Esmarch bandage was applied on the right limb. The tendo Achillis was divided ; the incision on the outer side of the foot included the bursa, which was removed. A wedge of bone was then excised with the cutting pliers and the usual horizontal and vertical incisions made ; on the inner side of the foot, which included all the soft tissues down to the tarsus, the anterior tibial tendon came into view and was sectioned ; the tendon of the posterior wall was readily found and divided, likewise the plantar fascia and all tense tissues—no vessels required ligation. The wounds of the open incision gaped widely ; the wound incident to the tarsectomy was brought together by gut sutures. The foot was brought into a normal position and placed upon a right-angle tin splint.

The left foot was at once operated upon in a similar manner by Dr. S. K. Morton. There was no pain or rise of temperature, and in a few days the child was out of bed. On the thirteenth day the dressings were removed—no swelling or irritation.

Among the cases reported at the last meeting of the Academy was a tarsectomy with tenotomy, the patient a girl of thirteen years of age, for severe equino-varus. There was no difficulty in getting the foot in a good position, and he concluded that the open incision was not necessary ; subsequently, he found some disposition to the recurrence of varus, and on May 28th divided the tissues on the inner side of the foot down to the tarsus, sectioned the anterior and posterior tibial tendons and all soft structures involved. The foot promptly came into excellent relaxed position and has not since been dressed.

DR. J. M. BARTON reported a successful operation for the relief of a

CONGENITAL UMBILICAL HERNIA

in a child thirty-three hours old.

Mrs. C. of this city was delivered by Dr. John Graham on November 3, 1888, of a female child. At the request of Dr. Graham he saw the child at 1 P. M. of the same day and found a healthy-looking female child, fully developed except that the sagittal suture was still open

to the extent of half an inch. There was a tumor at the umbilicus about the size of an adult fist; it was composed of omentum and intestines, which had protruded through an opening, over two inches in diameter, in the abdominal wall. The tumor was two and a half inches in height, over three inches in diameter, and was slightly pedunculated. It was covered by a thin layer of the expanded gelatinous matter of the umbilical cord, which was as transparent as glass. The intestines and omentum could be distinctly seen through it, and after they were returned to the abdominal cavity the left lobe of the liver could also be recognized. The cord had been tied and joined the tumor about half an inch to the left of its apex the vessels of the cord could be traced running down the left side of the tumor and entering the abdomen at the extreme left of the opening and midway between its upper and lower extremities. The child appeared to be otherwise in perfect health and had already made vigorous efforts to obtain nourishment. It seemed to be free from pain, except while the intestines were being reduced, which was done with some difficulty, as the abdominal cavity seemed scarcely large enough to contain them. A pad of cotton was then placed over the umbilicus and a firm flannel bandage bound around the child.

At twelve o'clock on the following day he met Dr. Graham for the purpose of operating, permission not having been obtained before; the child was then thirty-three hours old. On removing the dressing, which had retained most of the intestines in the abdominal cavity, the hernia was immediately reproduced, but owing to the shrinking of the gelatinous tissue which formed its sac it was not as large as the day before. It now measured six and three-quarters inches in circumference and four and a quarter inches over its convexity. The covering was not quite opaque, though the abdominal contents could still be indistinctly distinguished through it; it readily broke down under the fingers and was quite offensive, requiring repeated applications of a solution of the bichloride of mercury for the comfort of the operators.

It had been their intention, if the parts were found in the same condition as the day before, to pass long hare-lip pins across the opening, bringing its edges together and leaving the sac on the outside to shiver and dry. As this proved on trial to be ineffectual, the entire sac was trimmed away. About half an ounce of opaque serum with flakes of lymph floating in it ran from the abdominal cavity and the bowels exposed were now highly inflamed, being of a deep red color with patches of lymph lying upon them and glueing them together. Thinking the peritonitis was probably purely local and that the rest of the abdominal cavity was protected from infection by these adhesions they were careful not to rupture them. The bowels were kept in place by an antiseptic sponge while the edges of the opening, which measured six and a quarter inches in circumference, were freshened and brought together with seven hare-lip pins. A space of an inch was left between two of the pins for drainage, the umbilical vessels passed through this opening and acted as drainage threads. This opening was left to prevent the damming up of any further secretion of serum or pus, which might rupture the adhesions between the bowels and cause the local peritonitis to become general. The closed wound was dusted with iodoform and dressed with mercurial gauze.

As there was great tension on the pins holding the parts together, and it seemed probable that they would ulcerate through in a few hours, two pieces of Mead's adhesive plaster, each about six inches square, were placed one on each side of the wound, with the extremities that ran toward the spine cut into many tails. They approached in front to within an inch and a half of each other and were laced together by a strong cord placed over the dressings.

Nov. 5, child doing well, cries but little, and has no fever. The wound looks well and is not offensive.

6th. Slight discharge of pus through opening.

7th. About two drachms of pus.

8th. Six of the pins removed, wound slightly offensive, three drachms of pus discharged.

There was but little pus after this date. The wound was kept firmly supported by the plaster for two weeks and was dressed daily; as it was then firmly healed, it needed no further attention. The resulting scar is three and a half inches long. This condition, in a slight degree, is not very rare, but he was not aware of any case where the hernial protrusion was so extensive, except one reported as a "Laparotomy in a Child Sixty Hours Old," by Dr. Stolypinski in the *Centralblatt für Gynäkologie*, for March, 1889. The operation was performed at the clinic of Prof. Phaenomenoff, of Kassan, Russia. The tumor in this case was the size of a goose-egg, but the hernial opening was quite small, making it difficult to reduce the intestines, but there appeared to be no difficulty in retaining them after they were reduced. The opening was closed with silk and catgut. This child also made a good recovery.

NEW YORK ACADEMY OF MEDICINE.

SECTION OF PÆDIATRICS.

J. LEWIS SMITH, M.D., CHAIRMAN.

Stated Meeting, May 11, 1889.

DR. FOREST exhibited a child two and a half years of age which was unable to stand, walk, or creep, owing to

GENERAL MUSCULAR PARESIS.

There was no history of a previous severe illness. Dr. Forest was inclined to attribute the muscular insufficiency to a narrow prepuce, which he intended to dilate.

DR. SEIBERT said that in his opinion the muscles become atrophic from a permanent bilateral brain trouble in consequence of meningitis in early life.

DR. A. JACOBI remarked that he would not formulate an opinion, as all would be guess-work in the absence of a history of the case presented. He would state, however, that he had never known a case of paralysis, paresis, or insufficient development cured by dilating the prepuce.

DR. J. LEWIS SMITH said that there are cases on record of muscular paresis cured by dilating the prepuce. He distinctly remembered one case in which a child dragged one leg and was almost unable to walk, and soon got into a normal condition after dilating its narrow prepuce.

DR. FOREST then read a paper on

RETRO-PHARYNGEAL ABSCESS,

embracing chiefly the diagnosis, symptomatology, and treatment of the affection. He cited a number of cases observed, and gave a detailed account of one case of

collapse after incision. Although breathing was entirely suspended, he first cleared the throat of pus and then employed artificial respiration. The abscess did not refill and the child died of exhaustion on the following day. In conclusion, he stated that such abscesses are to be looked upon as suppurating lymphadenitis, and the diagnosis is best made by the finger.

DR. KOPLIK had observed about twenty-five cases, in many of which a previous angina was noticeable. He would not sanction the introduction of the finger as a means of diagnosis, as sudden deaths have been reported from rupture of the pus sac. He uses a tongue depressor and makes an oblique incision which will not readily heal up, thus preventing reaccumulation of pus.

DR. SEIBERT spoke of the snoring respiration as one of the marked symptoms of retro-pharyngeal abscess. The formation of such abscesses is invariably due to infection. When incising an abscess which is situated low down in the pharynx, he is in the habit of placing the child so that its head is lower than the body. As a rule, such abscesses refill several times.

DR. CAILLÉ remarked that within the last few years he has invariably punctured a pus sac in the pharynx, if accessible from the mouth, by means of a blunt instrument in order to avoid the speedy closure of an incised wound. The best instrument for the purpose is an ordinary depressing forceps which is pushed into the fluctuating swelling, after which the branches of the forceps are pressed apart, thus creating a ragged wound not liable to close.

DR. JACOBI said that if any one sign was characteristic of retro-pharyngeal abscess it was a peculiar voice, which he would call "tin voice," which he never found mentioned in the text-books. When puncturing an abscess the child should be held upright and thrust forward as soon as the incision is made. If the incision is made with the head low there is danger of aspirating pus. He was recently called to operate upon a child which had been cyanotic all day from the pressure of the pus. On introducing his finger for the purpose of locating the swelling the child collapsed, and was dead. An incision was made at once and artificial respiration resorted to without avail. In all probability the child had aspirated pus all day long and was in a dying condition when he introduced his finger.

DR. J. LEWIS SMITH remarked that he had never seen retro-pharyngeal abscess in a child over two years of age. In puncturing an abscess he would place the child upon its side face downward and he would always use the finger as a means of diagnosis.

DR. A. F. CURRIER read a paper on

VULVO-VAGINITIS IN CHILDREN.

(See THE MEDICAL News, July 6, 1889, page 3.)

DR. A. JACOBI said that inasmuch as a mucous surface must be denuded of epithelium to make infection possible, we shall find a simple catarrh to be the starting-point for every infectious vulvo-vaginitis. In treating by antisepsics it must be borne in mind that corrosive sublimate and boracic acid have no soothing action.

DR. KOPLIK said that the majority of cases are simple in nature and the gonorrhœal forms are rare. He was convinced that the secretion from a simple form of vulvo-vaginitis could produce violent conjunctivitis. As

regards treatment he uses a wash of tannin and alum in water and swabs the vagina twice a week with a ten per cent. solution of nitrate of silver.

DR. WEEKS said that a healthy mucous membrane can absorb infectious matter, and whenever we have pus we have infection. The micrococcus flavus is similar in appearance to the gonococcus and the latter is very common. A two per cent. solution of silver nitrate is a good germicide, a ten per cent. solution destroys epithelia and is entirely too strong. He had treated eighteen cases with sublimate 1:2000 with very good results.

DR. SEIBERT said that the fact that girls with leucorrhœa marry and do not infect their husbands speaks against the gonorrhœal origin of the majority of cases.

DR. WEEKS replied that in every case of ophthalmia of the newborn the gonococcus is found. The infection takes place from the woman and in many cases the man is absolutely free from disease—thus the man not being infected is no proof of the woman not harboring the gonococcus.

NEWS ITEMS.

The College of Physicians and Surgeons of Baltimore.—The Faculty of the College of Physicians and Surgeons of Baltimore have filled the vacancies created by the deaths of Profs. John S. Lynch and Oscar J. Coskery and the retirement of Prof. A. B. Arnold as follows: Prof. Thos. S. Latimer has been transferred to the chair of Principles and Practice of Medicine and Clinical Medicine; Prof. Chas. F. Bevan to the chair of Principles and Practice of Surgery and Clinical Surgery; Prof. J. W. Chambers to the chair of Operative and Clinical Surgery, and Prof. George H. Rohé to the chair of Obstetrics and Hygiene. To fill vacancies created by these transfers new professors were elected as follows: Prof. Henry Sewall, of the University of Michigan, to the professorship of Physiology; Dr. George J. Preston to the professorship of Anatomy, with the Diseases of the Nervous System as a clinical branch of instruction. As an evidence of esteem on the part of his colleagues, Prof. Arnold was elected emeritus professor of Clinical Medicine on his retirement.

Pasteur's Latest Returns.—We quote the following latest returns of Pasteur's Institute from *L'Union Médical*, July 4, 1889:

From May 1, 1888, to May 1, 1889, 1673 persons, bitten by rabid or presumably (*très suspects de rage*) rabid dogs, had been treated, 1487 being French and 186 foreigners. Of this total number, 118 were bitten on the head or face. Six cases, four of which had received bites on the head or face and two on the limbs, were attacked with rabies during the treatment and died; four others developed the disease within a fortnight after leaving the Institute, the treatment having been discontinued. Three patients died of rabies after the complete conclusion of the treatment, and these, therefore, represent the number in which the treatment actually proved unsuccessful—a ratio of 1 in 554. If, however, one should also include the ten other deaths, "which," Dr. Pasteur naively adds, "would be illogical," the mortality would still only be 1 in 128.

The Rejuvenescence of Elderly Women.—DR. BROWN-SÉGUARD, in concluding a communication to *The Lancet*,

July 20, 1889, on the effects produced on man by the subcutaneous injections of testicular liquid, states that "there are good reasons to think that subcutaneous injections of a fluid obtained by crushing ovaries just extracted from young or adult animals, and mixed with a certain amount of water, would act on old women analogous to that of the solution extracted from the testicles injected into old men."

It would be interesting to learn, also, the physiological effects upon old women of injections of the testicular liquid, and conversely of the effects upon old men of injections of the ovarian.

An Insanitary Exhibition.—The practical sanitation at the Paris Exhibition is harshly and deservedly criticised. In some of the large restaurants attached to the exhibition the water-closets are in the middle of the kitchens! A less dangerous expedient for economizing space might have been found, and one which would not have thus outraged all sense of decency, common cleanliness, and the elementary precepts of hygiene.—*British Med. Journal*, July 20, 1889.

Connecticut's Health Statistics.—The annual report of the State Board of Health for the past year has just been presented to the General Assembly. According to the death-rate, the State is in about the same condition of healthfulness as 1887. The rate is between seventeen and eighteen in a thousand, which is lower than that in many States, and also lower than in Europe. The Board predicts that the malaria—which is decreasing, especially in Fairfield County, where it originated—will ultimately disappear. Typhoid fever is increasing, as are diarrhoeal diseases. Whooping-cough and meningitis are proving more fatal, while croup and diphtheria are less so. An investigation is being made into the drinking water of the State. An analysis has already been made of the waters of seventeen of the largest cities and towns. Hartford is found to have the best water thus far.

The Utilization of Garbage.—According to the *Bulletin of the Rhode Island State Board of Health* for May, the city of Milwaukee will soon abandon the cremation of garbage, which it was among the first of the western cities to adopt and advocate. It is proposed to substitute a dry process in the place of combustion. A company is at work with a new method which converts cities' refuse into articles more or less salable. The garbage is made to pass through a series of mechanical driers, and in the course of ten hours becomes a brown powder. The oil is pressed out or drawn off, and the residue can be sold as a fertilizer.—*N. Y. Med. Journal*, June 29.

NOTES AND QUERIES.

THE POSTPONEMENT OF THE MEETING OF THE PENNSYLVANIA STATE MEDICAL SOCIETY.

To the Editor of THE MEDICAL NEWS,

SIR: At the regular meeting of the Medical Society of the State of Pennsylvania, held in Philadelphia in June, 1888, it was resolved to hold the next annual meeting of the Society in Pittsburgh, on the third Tuesday of May, 1889, and the Committee of Arrangements afterward assumed the responsibility of changing that day to the first Tuesday of June, 1889. When the members of the Society who were able to reach Pittsburgh met on that day, they found that, owing to the terrible disaster at Johnstown, a large number of the delegates could not be present, and they ad-

journed to meet on the first Tuesday of September. Now, the Committee of Arrangements have assumed the responsibility of dispensing with the meeting of the Society altogether this year.

The question arises, Has that Committee of Arrangements, appointed for a special purpose, the right to assume the authority of the whole Society, and say no meeting shall be held in this year? For one, I think that they can only exercise the authority delegated to them, and cannot assume rights which the Society alone at a regular meeting can determine.

The principle always recognized is that no committee have the right to go beyond the duties specially assigned to them by the society which appointed them, and in this case the determination of that Committee that the Society shall not meet in this year is an assumption of power entirely beyond that delegated to them in their appointment as the Committee to make arrangements for the regular meeting of the Society in Pittsburgh, and that only. Besides, they have fixed a day on which it will be impossible for several members who desire to attend to be present.

JOHN CURWEN.

WARREN, PA., July 29, 1889.

OFFICIAL LIST OF CHANGES IN THE STATIONS AND DUTIES OF OFFICERS SERVING IN THE MEDICAL DEPARTMENT, U. S. ARMY, FROM JULY 16 TO JULY 29, 1889.

By direction of the Secretary of War, WILLIAM H. GARDNER, Major and Surgeon, is detailed to attend the encampment of the National Guard of the District of Columbia, at Fort Washington, Maryland, from July 22 to July 29, 1889, for the purpose of giving instructions to the Medical Officers and Hospital Corps in their respective duties.—Par. 1, S. O. 164, A. G. O., July 18, 1889.

By direction of the Secretary of War, the extension of the leave of absence on surgeon's certificate of disability, granted H. G. BUNTON, Captain and Assistant Surgeon, in S. O. 22, January 26, 1889, from this office, is further extended two months on account of sickness.—Par. 1, S. O. 162, A. G. O., July 16, 1889.

By direction of the Secretary of War, WILLIAM R. STEINMETZ, Captain and Assistant Surgeon, now at Baltimore, Maryland, on leave of absence on account of disability, will report in person to the commanding officer of the Watertown Arsenal, Massachusetts, for duty at that station, relieving James C. McKee, Lieutenant-Colonel and Surgeon.—Par. 3, S. O. 166, A. G. O., July 20, 1889.

McKEE, JAMES C., Lieutenant-Colonel and Surgeon.—On being relieved at the Watertown Arsenal, will repair to Philadelphia, Pa., and assume the duties of Attending Surgeon and Examiner of Recruits in that city.—Par. 3, S. O. 166, A. G. O., July 20, 1889.

ROBINSON, SAMUEL Q., Captain and Assistant Surgeon (Fort Hamilton, New York Harbor).—Is hereby granted leave of absence for two weeks.—Par. 11, S. O. 165, Headquarters Division of the Atlantic, July 22, 1889.

BALL, R. R., First Lieutenant and Assistant Surgeon.—Leave of absence granted in S. O. 87, Department of the Missouri, July 9th, is extended five days.—Par. 1, S. O. 167, A. G. O., July 22, 1889.

BALL, R. R., First Lieutenant and Assistant Surgeon.—The extension of leave of absence granted in S. O. 167, July 22, 1889, from this office, is further extended ten days.—Par. 23, S. O. 169, A. G. O., Washington, July 24, 1889.

By direction of the President, the State of Arkansas, embracing Little Rock Barracks, is transferred to the Department of the Missouri.—General Orders No. 66, Headquarters of the Army, A. G. O., July 19, 1889.

PROMOTION.

EWING, CHARLES B., Assistant Surgeon.—To be Assistant Surgeon, with the rank of Captain, July 5, 1889, after five years' service, in accordance with the Act of June 23, 1874.

IHE MEDICAL NEWS will be pleased to receive early intelligence of local events of general medical interest, or of matters which it is desirable to bring to the notice of the profession.

Local papers containing reports or news items should be marked. Letters, whether written for publication or private information, must be authenticated by the names and addresses of their writers—of course not necessarily for publication.

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